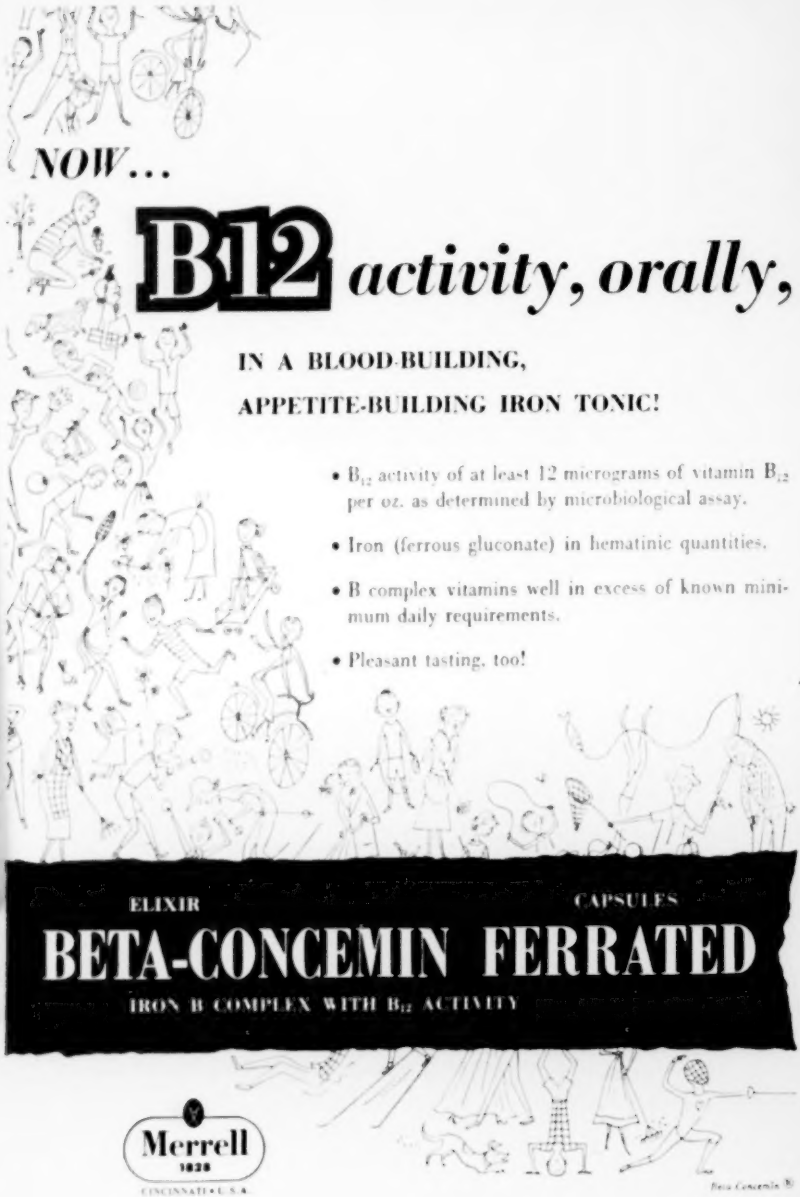
FEBRUARY 15, 1932

MODERN MEDICINE

The Journal of Diagnosis and Treatment



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1. Lange, K., and Weiner, D.: J. Invest. Dermat. 12:263 (May) 1949.

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MODERN MEDICINE

THE JOURNAL OF DIAGNOSIS AND TREATMENT

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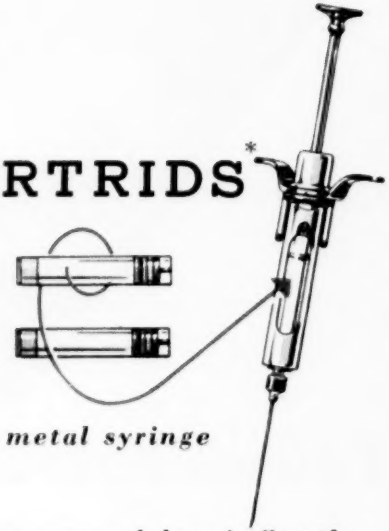

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or Dihydrostreptomycin Sulfate, Crystalline, Solution, 0.5 Gm. in 1 cc.

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for February 15 1951

Modern Medicine
Vol 19. No. 4

THE MAN ON THE COVER is Dr. William S. Hoffman, Director of Biochemistry at the Hektoen Institute for Medical Research of the Cook County Hospital, Chicago. He is also Professorial Lecturer in Physiology at the University of Illinois College of Medicine. Before assuming the directorate of the Hektoen Institute, Dr. Hoffman was a member of the National Research Council, and served on the medical faculty at Johns Hopkins University and the University of Chicago medical schools. In addition to his administrative and investigative activities he is a frequent contributor to medical journals. The article "Clinical Physiology of Potassium" on page 65, adapted from a report with the same title appearing in the *Journal of the American Medical Association*, is one of Dr. Hoffman's most recent contributions.

Contents for February 15 1951

CONTINUED

In Treating Para-nasal Infection...

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Advantages without disadvantages

The advantages—the positive factors favoring ARGYROL—are enough to make it an overwhelming choice: a rare combination of decongestive, demulcent, detergent and bacteriostatic actions.

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Contents for February 15 1951

CONTINUED

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LETTER FROM THE EDITOR

Dear Reader:

Since the time of Hippocrates, the doctor's chief concern has been the treatment and the care of the sick. But while the problem has remained the same, the means have changed.

The story of the progress of medical science has been told so often that we have a tendency to accept the historic fact and to take today's advances for granted. Only a dozen years ago pneumonia was one of the major causes of death. Now a patient rarely dies of pneumonia. The sulfonamides and antibiotics have given the medical profession the means of effective therapy.

Less spectacular, perhaps, but tremendously important in the treatment of other diseases are the anticonvulsant, the anticoagulant, and the antihistaminic drugs. In the past few years great strides have been made in the development and employment of these therapeutic agents to relieve suffering and to save lives.

Clinical progress with these drugs is the theme of three special articles now in preparation for *Modern Medicine*. These articles will outline the most successful modes of treatment with the three groups of drugs. Indications, efficacy, and limitations will be evaluated in the light of present knowledge.

The first article will appear in the March 1 issue. The paper, entitled "Control of Seizures with Drugs," will be a comprehensive review of the antisconvulsants by Dr. William G. Lennox, Assistant Professor of Neurology, Harvard Medical School, and President of the International League of Epilepsy since 1935.

The second article, "Anticoagulant Therapy for Thromboembolic Disease," will be published in April. The author is Dr. Irving S. Wright, Associate Professor of Medicine, Cornell University, and Chief Consultant in cardiovascular diseases to the Veterans Administration.

The third article, "The Antihistaminics" by Dr. Morris Fishbein, former Editor of the *Journal of the American Medical Association*, will appear in the June 1 issue.

EDITOR

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Smith, Kline & French Laboratories, Philadelphia

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Correspondence

Communications from the readers of MODERN MEDICINE *are always welcome. Address communications to The Editors of* MODERN MEDICINE, *84 South 10th St., Minneapolis 3, Minn.*

Relief of Herpetic Pain

TO THE EDITORS: In the December 15, 1950 issue of *Modern Medicine* there is a question from a Colorado M.D. about pain following herpes zoster (p. 22). The consultant replies that no therapy is specific.

Dr. E. V. Allen and I have treated 6 patients with Etamon Chloride with 80 to 100% relief in all cases. This is by far the simplest procedure and the most effective. The usual precautions should be considered when using Etamon.

HUGH S. BROWN, M.D.

Spokane

Red Feather Support

TO THE EDITORS: May I extend my personal thanks for the fine support given by *Modern Medicine* to the Red Feather campaigns this fall?

You will be interested to know that final reports indicate that the Community Chests and other united Red Feather campaigns have raised record-breaking total funds. Bringing the facts to the attention of your readers undoubtedly helped a great deal in stimulating the wonderful support.

C. E. WILSON

National Campaign Chairman

New York City

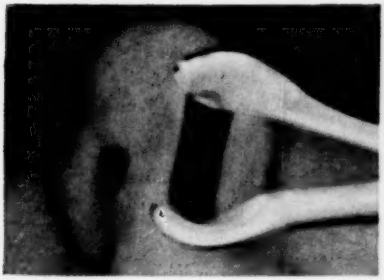
Antibiotics and Biopsies

TO THE EDITORS: In a footnote to the comments on liver damage in pneumonia by Dr. Alfred R. Ross, you request your readers to write as to whether they have evidence of liver damage from antibiotic treatment of pneumonia (Nov. 1, 1950, p. 18). While I have no positive evidence on this specific point, I seriously doubt that the antibiotics have a deleterious effect upon the liver.

Dr. Ross states in his letter that liver function was not impaired in pneumonia before the advent of antibiotic treatment and that, in his opinion, such treatment causes the liver damage. I seriously question this statement of Dr. Ross and would appreciate information as to its basis. I happen to have done considerable research in the past on liver damage and repair and, from my experience, any severe infection is quite capable of producing, and frequently does produce, some degree of liver damage. I know of no reason why pneumonia should be an exception.

The article which prompted Dr. Ross's letter, "Liver in Pneumococcal Pneumonia" by Drs. H. J. Zimmerman and Lawrence J. Thomas, appeared in the September 1 number

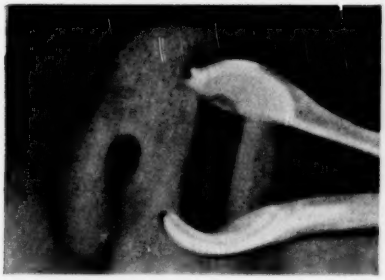
more rapid, complete and prolonged shrinkage with BENZEDREX INHALER:



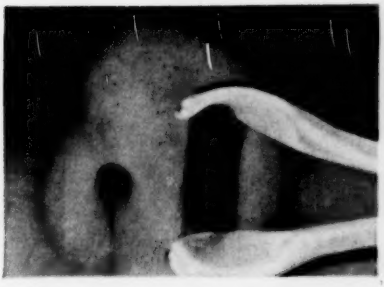
After 5 minutes.
Benzedrex Inhaler has produced virtually complete shrinkage.

After 1 hour.
Benzedrex Inhaler still provides almost complete shrinkage.

for comparison—shrinkage with ephedrine:



After 5 minutes.
Shrinkage does not compare with that of Benzedrex Inhaler.



After 1 hour.
The ephedrine nostril is almost completely occluded.

Before treatment the patient's inferior turbinate almost completely obstructed the airway in both cases. The only variable was the vasoconstrictor used.

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of *Modern Medicine* (p. 48). The last sentence in that article, in my opinion, is the real key to the question. The paragraph referred to is herewith quoted:

> The extent of hepatic dysfunction probably depends on a combination of factors, including previous state of the liver, especially with regard to alcoholism and dietary deficiency, as well as intensity of infection, fever, anoxia, and the accompanying alarm reaction.

I, too, would be very much interested in hearing from others as to the question of antibiotics having a deleterious effect upon the liver. I personally believe that antibiotics have been blamed for a great deal of mischief for which they are not responsible.

The second item upon which I would like to comment is the article, "Indications for Biopsy of the Skin," by Dr. Earl B. Ritchie, M.D.,[1] of the University of Texas, published in *Modern Medicine*, November 15, 1950, p. 108. I quite agree with practically everything that Dr. Ritchie says, but he has omitted one principle which I, as a pathologist, feel is fundamental.

It has always been my belief that, unless complete surgical excision of a skin lesion is impracticable, a biopsy in the usual sense of the word should not be done. Instead of removing a portion of any questionable skin lesion for pathologic examination, the entire lesion should be *widely* excised so as to insure complete removal of the lesion. It has been my displeasure to receive for examination too many incompletely removed malignant lesions of the skin when complete removal would have been just as easy.

I have had this happen in the case of melanomas and other types of malignant skin lesions. Only last year a surgeon removed what clinically and histologically was a benign pigmented nevus of the face which, on the surface, was only about 1.5 mm. in diameter. The total width of the specimen was only 3 mm. Sections made through the center of this lesion showed that a considerable amount of nevus extended far beyond the limits of the section removed.

In view of the reputed tendency of benign pigmented nevi to become malignant when incompletely removed, the lesion mentioned would have been better left alone.

I feel that the principle of wide excision of suspected lesions cannot be too strongly emphasized. I have seen too many sad results from failure to so excise.

JOHN H. SCHAEFER, M.D.
Los Angeles

Acne Rosacea and Athlete's Foot

TO THE EDITORS: I would like to submit the following discussion of two questions that appeared recently in the Questions & Answers department of *Modern Medicine* (Dec. 1, 1950).

The first question was concerned with the treatment of acne rosacea. Even though the etiology of rosacea is not proved beyond doubt, evidence is increasing to show that it is probably due to vitamin B deficiency. Therapeutic success seems also to support this contention. Ichthyol by oral medication (Rx ichthyoli 0.25 gm., in capsules, 1 t.i.d.) seems to

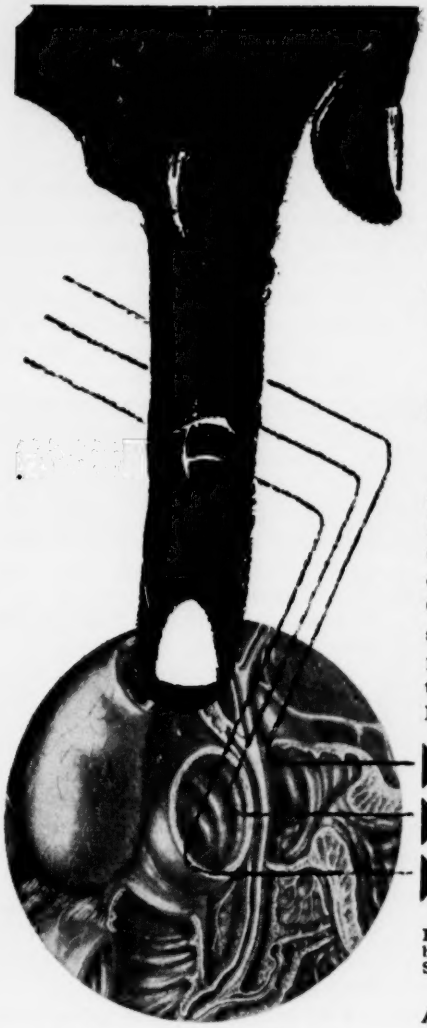
restore the normal intestinal bacterial flora responsible for the production of the vitamin B complex. One can provide the necessary amount of vitamin B complex by giving brewers' yeast tablets (1 t.i.d.). This is replacement therapy.

I do not treat locally with either type of medication. The results are excellent. My preference in most cases is Ichthyol. Roentgen therapy is dangerous; its effect is only temporary, if any. The use of hormones has no rationale at all.

To the question, "What is the proper treatment for athlete's foot?" I would answer: Athlete's foot is not a dermatomycosis, that is, it is not caused by a fungus of any description. Fungi found in the roof of the deeply embedded, sago-grain-like blisters and pustules—the one and only primary lesion of this condition—are simple saprophytes, nosoparasites. Even they are absent in the great majority of cases.

Thus, therapeutic suggestions directed against these innocent, harmless, nosoparasitic fungi are doomed to failure, because they want to treat or attack something (fungi) which is not there at all and, even when the fungi can be found, they have nothing to do with either the etiology or pathogenesis of this condition. Without due consideration of the etiology and pathogenesis of the condition, therapeutic suggestions remain poor guesswork. However, exact knowledge of the etiology and pathogenesis has been available for a considerable length of time.

The correct scientific term of the condition under discussion is pompholyx, occurring on palms, soles, fingers, or toes, characterized by deep-seated, sago-grain-like blisters with or without pustules, embedded



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*Rehfuss, M. E.: Penna. Med. J. 42:1335, 1939.

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There is only one specific therapy, vaccine therapy, by the vaccine of *B. endoparasiticus*. No local treatment is indicated or necessary. For more details consult T. Benedek: *Urol. & Cutan. Rev.* 50:467-493, 1946; *Indust. Med.* 16:344-349, 1947; and *Urol & Cutan. Rev.* 54:409-413, 1950. B. Schuster, *Northwest Med.* 46:298, 1947.

TIBOR BENEDEK, M.D.

Chicago

Symposium Interesting

TO THE EDITORS: It gives me great pleasure to introduce myself to you. I am an Egyptian dermatologist, fellow of the World Health Organization, at present studying at the Dermatology Department of the University of Pennsylvania under Dr. Donald Pillsbury.

I have recently come across your special November 15 number about dermatology. I found it most interesting. I wish to have a copy of that issue.

GEORGE RIZK MIKHAIL, M.D.

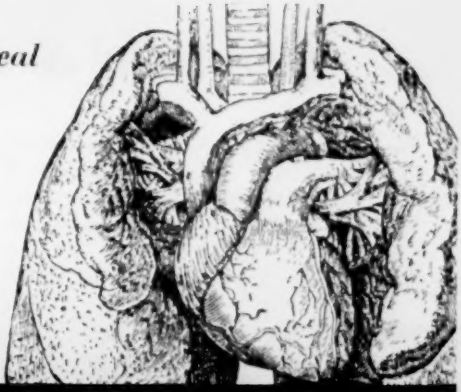
Philadelphia

in acute laryngotracheal bronchitis

prompt response

with

Terramycin



CASE	DIAGNOSIS	OFFENDING ORGANISM	DAYS TREATED	TOTAL DOSE GM.	ADMINISTRATION	CONDITION AND RESULT
16	Acute laryngotracheal bronchitis	Hemophilus influenzae	3	12	oral	Marked improvement in 24 hours. Recovery

Case report taken from Herrell, W. E.; Heilman, F. R., and Wellman, W. E.: Ann. New York Acad. Sc. 53:448 (Sept. 15) 1950.

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1. Welch, H.; Hendricks, F. D.; Price, C. W., and Randall, W. A.: J. A. Ph. A. (Sc. Ed.) 39:185 (Apr.) 1950.
2. Knight, V.: New York State J. Med. 50:2173 (Sept. 15) 1950.

Questions & Answers

All questions received will be answered by letter directed to the petitioner; questions chosen for publication will appear with the physician's name deleted. Address all inquiries to the Editorial Department, MODERN MEDICINE, *84 South Tenth Street, Minneapolis 3, Minnesota.*

QUESTION: Is it likely that a patient with chronic nonspecific ulcerative colitis who has had anal incontinence for the past year will eventually regain control? Are drugs helpful in restoring anal continence?

M.D., Pennsylvania

ANSWER: *By Consultant in Proctology.* The information given is insufficient for a definite opinion. However, a patient with ulcerative colitis with anal incontinence of a year's duration has practically no chance of regaining control. No drugs are known that would help to restore anal sphincter control. If, however, the case is one of pseudoincontinence, that is, an excessive number of loose stools with urgency or tenesmus so that the patient is unaware of bowel movements but has a sound sphincteric musculature, true continence may be expected with improvement of the intestinal disease.

QUESTION: When both parents are afflicted with severe hay fever would transference of the allergy to offspring be prevented if conception or delivery were avoided during the allergy season?

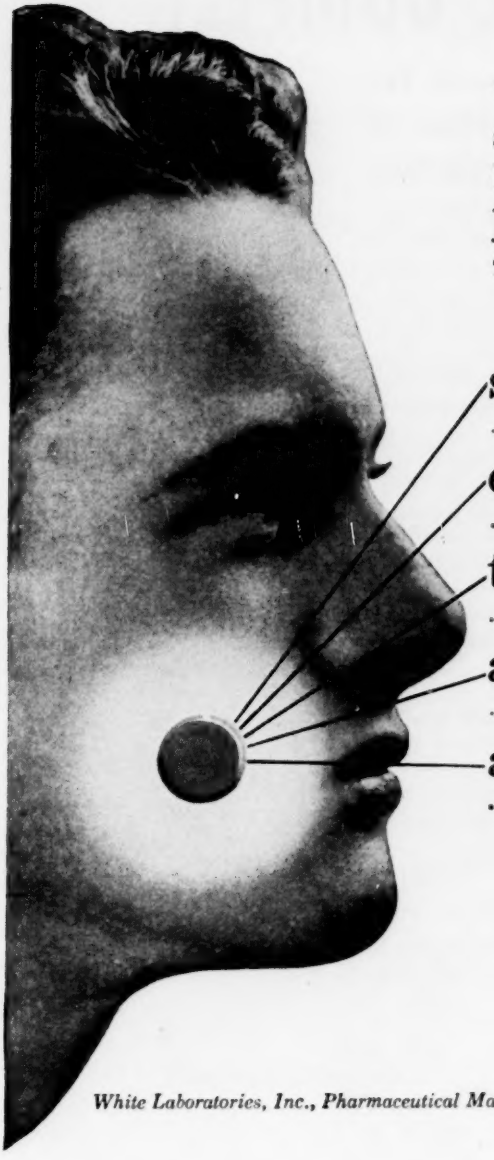
M.D., New York

ANSWER: *By Consultants in Allergy and Obstetrics.* Since hereditary traits are fixed within the chromosomes of the germ cells, the effect of external environmental factors such as active allergy should be nil. There is no evidence to indicate that planning a family by allergic parents so that conception and delivery were avoided during the hay fever season would in any way reduce allergic manifestations in the offspring. No matter when conception or birth occurs, 90% of the children of 2 allergic patients will show some form of allergy before the age of 10 years. However, there is reason for planning a family so that delivery of a child does not occur during the hay fever season, if the mother has severe hay fever, because childbirth might aggravate the condition.

QUESTION: A complete colectomy with a permanent ileostomy for chronic ulcerative colitis was done for a female patient, age 26, about a year ago. She is bothered by loud gurgling noises and an offensive odor. Have you any suggestions to mitigate these obnoxious effects?

M.D., New Jersey

ANSWER: *By Consultant in Proctology.* The gurgling noises are usually due to hyperperistalsis and may be reduced or eliminated by avoidance of irritating foods, such as



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261-

spices, the cabbage family, and carbonated waters. Sedatives and belladonna or belladonna derivatives, such as atropine, are helpful.

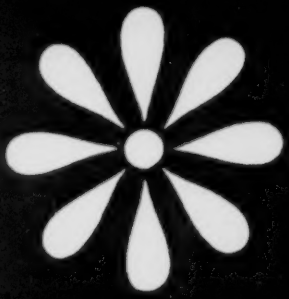
Charcoal tablets or the recently introduced Kaolin and chlorophyl tablets are effective in eliminating offensive odors. Dosage is a matter of individual adjustment. Also important is the use of a well-fitting, disposable plastic ileostomy bag. The nondisposable rubber bag retains offensive odor even after diligent washings and should be discarded.

Reassurance that the borborygmi are usually not heard by persons other than the patient helps to remove anxiety which, in itself, may accentuate the condition. Since the gurgling noises usually occur immediately after meals, the patient should be advised to take a short rest after partaking of food.

QUESTION: What time interval should intervene between the last appearance of symptoms in an epileptic patient under treatment with Dilantin and his resumption of automobile driving and work with heavy industrial machinery?

M.D., Delaware

ANSWER: *By Consultant in Neurology.* Most physicians treating epileptic patients believe that patients who have been free from seizures for a period of two years with medication may resume driving or work with heavy machinery with relative safety.



for the pain that *wasn't* there following Pabalate therapy in arthritis.

Para-aminobenzoic acid 0.3 Gm. (5 gr.), plus sodium salicylate 0.3 Gm. (5 gr.) provide *higher* salicylate blood levels on *lower* salicylate dosage — with *more prolonged* clinical relief, and *reduced* side-effects.

P

QUESTION: All his life a patient, now 52, has had allergic symptoms. He reacts especially to heat. If he enters a warm room, eats warm food, or drinks warm water, tea, coffee, or milk, he immediately becomes overheated, starts to perspire, feels dizzy, and sometimes even breaks out in hives. Is there any treatment for physical allergy?

M.D., New York

ANSWER: *By Consultant in Allergy.* The treatment of physical allergy has never been satisfactory. Fortunately, the condition sometimes disappears spontaneously. Before the advent of the antihistaminic drugs, many clinicians recommended gradual exposure to heat or cold in the hope that tolerance could be developed. However, complete cooperation from the patient was usually difficult to obtain. Now one may try a long-acting antihistaminic drug such as Di-paralene or Perazil or a repeat action drug such as Chlor-Trimeton or laminated Pyrrolazote. Medication can be taken every eight hours.

QUESTION: A healthy woman 20 years old is concerned about the nondevelopment of her breasts. Is there any external application to be used?

M.D., Maryland

ANSWER: *By Consultant in Gynecology.* If this patient has normal ovarian function as demonstrated by regular menstruation and normal pelvic findings, the use of prosthesis, commonly known as falsies, is recommended. If she has concomitant amenorrhea, the use of estrogens in large dosages given in cyclic manner to allow withdrawal bleeding would also serve to stimulate breast growth during the time of administration.

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Forensic Medicine

ARTHUR L. H. STREET, LL.B.

Prepared especially for Modern Medicine

PROBLEM: In a murder trial, was an associate toxicologist in a state department of toxicology, who had had considerable experience in performing autopsies and spectroscopic and ballistic examinations, qualified to testify as to whether wounds on the victim's body were inflicted before or after death?

COURT'S ANSWER: Yes.

The Alabama Supreme Court mentioned the witness' explanation that an antemortem wound is indicated by a swelling of the area and interstitial hemorrhage (48 So. 2d 553).

PROBLEM: A Wisconsin statute, as in other states, forbids a physician to disclose, without a patient's or the patient's representative's consent, information acquired in a professional capacity to enable the doctor to treat the patient. In a third party's suit against a deceased patient's estate on a note, did the trial judge wrongfully refuse to permit the decedent's doctor, who witnessed signing of the note, to testify to the circumstances under which the note was signed?

COURT'S ANSWER: Yes.

The Wisconsin Supreme Court said that under the statute a physician "is a competent witness if his part in the transaction was disassociated from his professional duties or where the privilege with relation to confidential communications has been waived" by the patient or his representative (44 N.W. 2d 574).

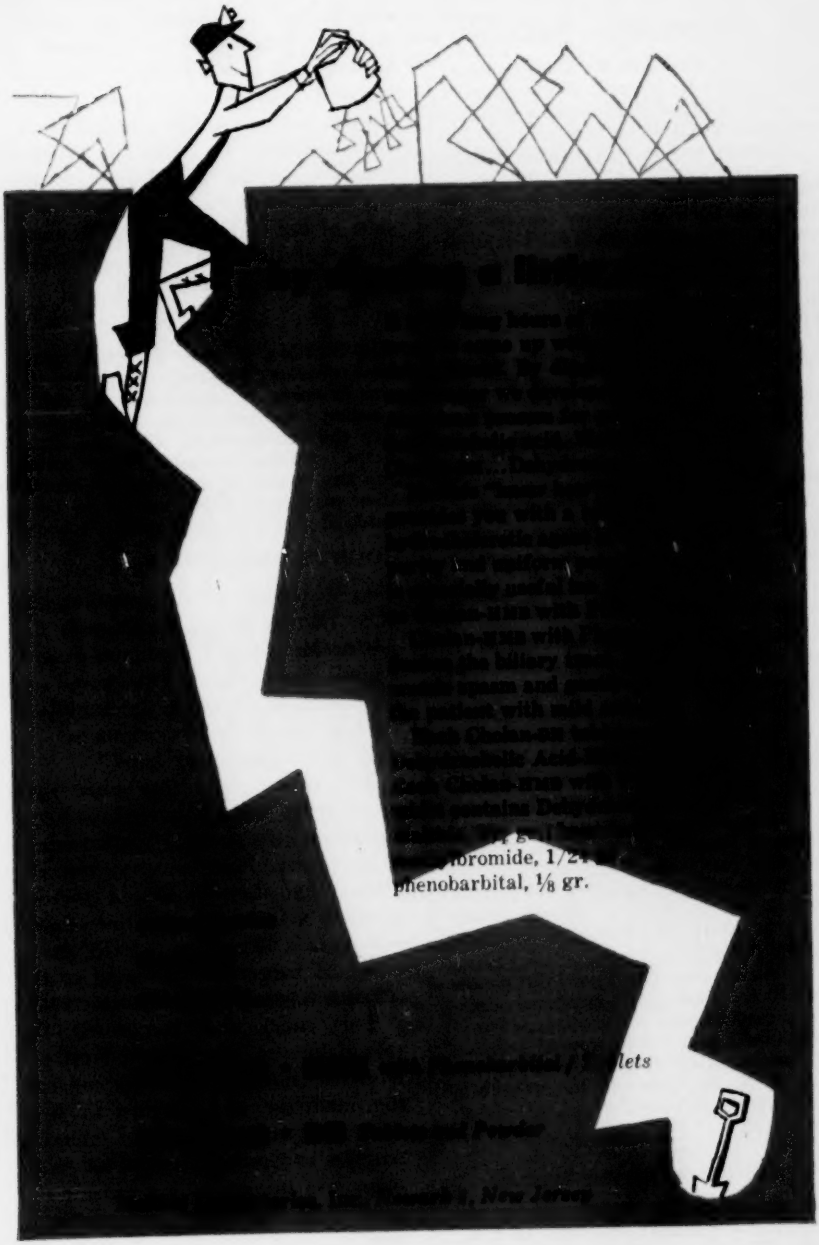
PROBLEM: In a wife's suit to compel her husband to support her infant child, defended on the ground of nonpaternity, did the trial judge wrongfully reject the husband's request that the wife and child be required to take a blood-grouping test, when the wife gave no good reason for not submitting?

COURT'S ANSWER: Yes.

The Appellate Division of the New Jersey Superior Court cited numerous legal and medical authorities as vouching for the accuracy of such tests, "not to prove paternity, and not always to disprove it," but as disproving it "conclusively in a great many cases provided they are administered by specially qualified experts."

The court said that, although a trial judge has considerable discretion to order a blood-grouping test, his refusal to do so is subject to reversal on appeal when the question of parentage is relevant and a test may have crucial effect.

But the court recognized that refusal to require a blood test might be excused on proof that submission to it might endanger the patient's health. However, because the giving of a few drops of blood can rarely involve any risk, the person refusing to submit must establish the possibility of danger. Here the wife showed no medical reason for refusing.


bromide, 1/2
phenobarbital, ⅛ gr.

The court assumed, without deciding, that a defendant in a criminal case might not be required to submit to a blood-grouping test, but decided that in civil cases "appropriate and familiar judicial sanctions" might be used to enforce obedience. This would seem to imply that a wife's suit to compel support of her child might be dismissed if she persisted in refusing to submit to the test (76 Atl. 2d 717).

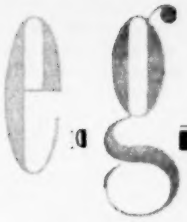
PROBLEM: Kansas, as other states, has separate statutory provisions for the licensing of osteopaths, as distinguished from physicians and surgeons. Are the constitutional rights of osteopaths violated because they cannot practice medicine or surgery, although they may have been trained in those fields of practice in osteopathic schools?

COURT'S ANSWER: No.

In disposing of the question, the U.S. District Court for Kansas did not decide whether graduates of such schools could practice "incidental surgery such as severing the umbilical cord or repairing lacerations by . . . surgery in obstetrical cases."

The court noted that since 1913 osteopathic schools have broadened their curricula so as to teach limited drug therapy and surgery, but declared that they could not thereby broaden a license to practice osteopathy into a license to practice medicine and surgery in disregard of the statutes regulating that practice.

The court also recognized the reasonableness of exacting from osteopaths enough knowledge concerning medicine and surgery to help them recognize the need for referring patients to licensed doctors for treatment and surgery falling outside the practice of osteopathy (92 Fed. Supp. 280).



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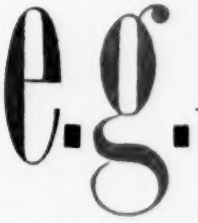
therapy is indicated.

In the treatment of fractures and osteoporosis in either sex to promote bone development, tissue growth, and repair.



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In the treatment of the female climacteric in certain selected cases.

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Methyltestosterone
wherever combined estrogen-androgen
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In the treatment of dysmenorrhea in an attempt to suppress ovulation on the basis that anovulatory bleeding is usually painless.

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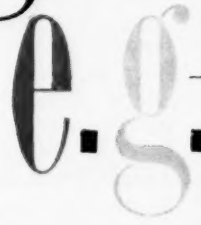

In the treatment of the male climacteric to reduce follicle-stimulating hormone levels.

"Premarin" with Methyltestosterone provides a steroid combination designed to permit utilization of both the complementary and the neutralizing effects of estrogen and androgen when administered concomitantly. Thus certain properties of either sex hormone may be employed in the opposite sex with a minimum of side effects.

Availability: Each tablet provides estrogens in their naturally occurring, water-soluble, conjugated form expressed as sodium estrone sulfate, together with methyltestosterone.

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PROBLEM: A surgeon assisted a hospital nurse in moving an unconscious patient from an operating room on a wheeled stretcher. An elevator door was open and, while the doctor was attempting to bring the elevator to the floor level, the nurse carelessly permitted the stretcher to roll into the elevator shaft, injuring the patient. [1] Was the doctor liable in damages? [2] Was his partner, who was not present, liable?

COURT'S ANSWERS: Yes.

1] In this case, decided by the Iowa Supreme Court some years ago, the court does not seem to have adopted a view that a surgeon is under any *implied* responsibility for the safety of a patient in transit between his room and the operating room. The surgeon assumed responsibility in this instance when he undertook to help move the patient. Liability was imposed not on a theory that the doctor was liable for the nurse's carelessness, but because he failed to safeguard the patient when he knew that the nurse was about to release her hold on the stretcher to help him bring the elevator to the floor level.

The dissenting judge said that the decision greatly increased "the liability, already sufficiently burdensome, of the medical profession." He thought that the hospital, rather than the doctor, ought to be charged with the nurse's neglect, which was the direct cause of the accident.

2] Finding from the evidence that the surgeon had undertaken, on behalf of his firm, to assist in the removal of the patient from the operating room to her hospital room, the Supreme Court decided that the doctor's partner was automatically liable jointly with the doctor. The dissenting judge thought that the assistance given by the surgeon ought

from the first soft whisper....

When pregnancy is *first* diagnosed, the need for *increased* amounts of calcium, phosphorous, iron and vitamins is already present.

OBron—specifically designed for the OB patient—provides balanced proportions of calcium, phosphorous, iron and vitamins to meet the added nutritional demand of the mother and to safeguard the optimal development and growth of the fetus.

Especially beneficial during the period of lactation, OBron supplies adequate vitamins and minerals to protect the nutritional state of the mother and insure an optimal content of these nutrients in the milk for the nursing child.

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*Dicalcium Phosphate, Anhydrous...	768 mg.	Vitamin B_2 (Riboflavin).....	2 mg.
Ferrous Sulphate U.S.P.....	64.8 mg.	Vitamin B_6 (Pyridoxine Hydrochloride)	0.5 mg.
Vitamin A (Fish-Liver Oil)...	5,000 U.S.P. Units	Vitamin C (Ascorbic Acid).....	37.5 mg.
Vitamin D (Irradiated Ergosterol)	400 U.S.P. Units	Niacinamide.....	20.0 mg.
Vitamin B_1 (Thiamine Hydrochloride).	2 mg.	Calcium Pantothenate.....	3.0 mg.

Equivalent to 15 grains Dicalcium Phosphate Dihydrate

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to have been regarded as his voluntary and personal act and therefore not chargeable to the firm (115 N.W. 921).

In several states, appellate courts have applied to medical partnerships the rule commonly applied to all business partnerships—that each member of a firm is its agent and guarantees to the public that each will use due care and skill to avoid injuring those who deal with the firm. But, of course, if one member of a firm injures an outsider in committing some act that falls outside the scope of the firm business, he alone can be held liable.

PROBLEM: Does a doctor's refusal to treat a Negro fall within a statute making it unlawful for the proprietor, keeper, or manager of a restaurant, barber shop, conveyance, theater, store, "or any other place of public accommodation or amusement" to deny to a citizen, except for reasons applicable alike to all citizens regardless of color or race, the "full enjoyment of the accommodations, advantages, facilities, or privileges thereof"?

COURT'S ANSWER: No.

The Ohio Court of Common Pleas for Montgomery County dismissed a suit for damages brought against a dentist under the statute. But the opinion treated physicians, surgeons, and lawyers, as well as dentists, as falling outside the law.

The court cited an opinion of an Ohio appellate court to the effect that a doctor is not liable for refusing to respond to any call unless he has contracted to render services.

The court said that it would be unreasonable to assume that the legislature intended, without expressly saying so, to require a doctor to

When the diagnosis is Pyelitis

To establish and maintain urinary antisepsis, MANDELAMINE* is many times preferred because it is quickly effective against the organisms most commonly encountered in urinary-tract infections. Its exceptional freedom from untoward reactions and its wide range of antibacterial activity commend it for use as soon as the diagnosis has been made.

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treat every prospective patient regardless of the doctor's special line. The court thought that having specially mentioned barbers, and so on, the legislature would have specified dentists, physicians, and surgeons had it been intended to include them in the statute (95 N. E. 2d 30).

PROBLEMS: An orderly in a physician's private hospital assisted in childbirth when the doctor was away and no other doctor could be secured. Did the orderly violate a statute forbidding practice of medicine without a license but excepting "the furnishing of medical assistance in a case of emergency"? The orderly had been a surgical technician in the Medical Corps. Was he guilty of violating a statute forbidding an unlicensed person to hold himself out as being able to diagnose and treat human disease or to operate because he was commonly known as "Doctor B"?

COURT'S ANSWERS: No.

The Florida Supreme Court said that the man exceeded his authority as nurse and orderly by assisting in delivery of a child, but that the emergency justified what he did. Apparently the statute did not specifically ban use of the word "doctor," and the court noted that the prefix "Doctor" is commonly applied by the public to druggists, nurses, and others (47 So. 2d 764).

PROBLEM: A malpractice suit was decided in a doctor's favor upon the ground that the plaintiff, a woman, failed to substantiate a claim that her child was delivered dead through the doctor's refusal to attend her. The husband was a material witness as to the doctor's refusal to continue attendance. The husband testified that the doctor had been paid in full for all services to date when allegedly he refused to

(Continued on page 46)

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Dose: 1 or 2 teaspoonfuls with 2 glasses of water twice daily.

for physiologic elimination

continue. The doctor testified that the husband discharged him and that his fees were not paid. Under these circumstances did the trial judge properly permit the doctor to show by the operator of a credit bureau that the husband told the latter that if the doctor should sue him on the account he would sue the doctor for malpractice?

COURT'S ANSWER: Yes.

This case was decided by the Oklahoma Supreme Court (215 Pac. 2d 827).

PROBLEM: Preparatory to a fistula operation and before the patient's surgeon arrived, a private hospital attendant burned the patient, who was under anesthesia, by negligently applying to the patient's body an electric plate to which was attached an electrocautery knife. [1] Was the doctor liable? [2] Was the hospital liable?

COURT'S ANSWERS: [1] No. [2] Yes.

The New York Supreme Court, Brooklyn, said that suit for damages against the surgeon was properly dismissed because the jury had specifically decided that, under the circumstances, it was not necessary for the doctor to supervise the placing of the plate.

As to the liability of the private hospital operated for profit, the court pointed out that another New York court had decided that such a hospital was liable for negligence of an intern and that, for stronger reasons, there should be liability for "carelessness of a nurse or other agent or employee of a private hospital." The court distinguished the case from one in which it was decided that a public or charitable hospital was not liable for negligence of a nurse while performing professional duty (99 N.Y. Supp. 2d 814).

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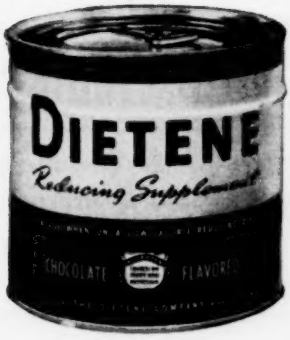

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The value of sodium-restricted diets in congestive heart failure, high blood pressure, and certain forms of renal disease has been established by numerous clinical studies. In patients requiring a reduction of weight with a sodium-restricted diet, specification of **DIETENE®** provides a truly palatable means of accomplishing the desired result *without sacrificing nutritional adequacy, or jeopardizing the low-sodium regimen.*

DIETENE is an excellent low-calorie source of biologically superior proteins plus protective amounts of essential vitamins and minerals.

SUPPLIED: In 1-lb. cans, plain or chocolate flavor, available through all pharmacies at $1.55.
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Name.....**M.D.**
(Please Print)

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City.....**Zone**.....**State**.....

Washington Letter

Effective Mass Treatment Is Goal of Civil Defense Manual

Many hours of behind-the-scenes discussion went into preparation of the statement on treatment of burns included in Civil Defense Administration's health services handbook, now being circulated throughout the country to medical leaders. The problem facing National Security Resources Board's staff was to reconcile the many burn treatments currently in use, but limit the medical material in stockpiles.

Representatives of several government departments and professional associations were consulted on this, as they were on other controversial points.

The method selected is a dry treatment, employing a cellulose pad faced with extremely fine gauze and backed with coarse gauze, held in place with tensile roller bandages.

The treatment was not selected as

(Continued on page 52)

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Saline Suspension of CORTONE Acetate

(1 cc. = 25 mg.) vials, 20 cc.

Tablets— CORTONE Acetate

(25 mg. each) bottles, 40 tablets

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Although the manufacture of Cortone—probably the most intricate and lengthy synthesis ever undertaken—has imposed unprecedented difficulties, every effort is being made to increase production and, in the meantime, to achieve an equitable national distribution of this vital drug.

Literature on Request

Among the conditions in which Cortone has produced striking clinical improvement are:

RHEUMATOID ARTHRITIS and Related Rheumatic Diseases

ACUTE RHEUMATIC FEVER

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SKIN DISORDERS, notably Atopic Dermatitis, Psoriasis, Exfoliative Dermatitis, including cases secondary to drug reactions, and Pemphigus

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ADDISON'S DISEASE

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same indications as other sulfonamides?

2 More; it has been effective in some infections not responsive to other sulfonamides and antibiotics.

how about toxicity?

3 High solubility prevents renal blocking. Incidence of other reactions is also very low.

'ROCHE'?

should the patient be alkalized?

4 Not necessary with Gantrisin® because of its high solubility.

how about cost?

5 Gantrisin is so economical that it can be prescribed without straining the patient's budget.

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the ideal therapy, NSRB was careful to point out, but because it met the following requirements:

1] The procedure is effective and provides relief from pain.

2] It is applicable to all, or nearly all, types of burns, and can be employed by first-aid workers.

3] It is usable under most field conditions, is suitable for rapid application, and requires short time for application and after care.

Acme

Applying cellulose pad

4] Necessary supplies can be stockpiled and are relatively inexpensive.

5] The method does not predetermine subsequent treatment.

The handbook is modest in its description of the method selected. The report says:

A large variety of treatments for burns currently is in use. The multipli-

Quality and Craftsmanship...

GELUSIL* *'Warner'*

Once in a long while a remedy is evolved which meets practically all of the medical requisites: effective, safe, and reliable. In the management of peptic ulcer or hyperacidic conditions, GELUSIL* 'Warner' by combining comparatively non-reactive aluminum hydroxide gel with magnesium trisilicate, provides the advantages of both.

Prompt action **Prompt relief**
Prolonged action **Prolonged relief**

without secondary acid rise, chloride depletion, or danger of alkalosis;
and, most important, there is practically no constipation.[1]

HOW AVAILABLE: GELUSIL* 'Warner,' the safe, effective and reliable antacid preparation is purely local and non-systemic in its action.

TABLETS – each containing magnesium trisilicate, 0.5 Gm (7.5 grains) and dried aluminum hydroxide gel, 0.25 Gm (4 grains): boxes of 50 and 100, and bottles of 1000 tablets.

LIQUID – magnesium trisilicate, 0.5 Gm (7.5 grains) and aluminum hydroxide, 0.25 Gm (4 grains) per 4 cc (1 teaspoonful): bottles of 6 and 12 fluidounces.

[1]Seley, S. A.: Medical Management of Pyloric Obstruction Resulting from Peptic Ulcer, *Am. J. Dig. Dis.*, *13*:238, 1946.

*T. M. Reg. U. S. Pat. Off.

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city of methods indicates that none is strikingly superior to the others and that much more research work in the whole field is needed. The body area involved, the degree and cause of the burn and other variable factors may demand some variations in any kind of treatment developed. Each physician should be free to use the type of external treatment which his judgment dictates, providing that supplies and personnel for the type of treatment are available. . . .

The criteria for a satisfactory local burn treatment for the thousands of burn casualties that would result from atomic attack are considerably different from those which would be used to evaluate an individualized type of local treatment. In the latter case, one would search for an ideal treatment for a particular type of burn. With mass casualties, however, the need is for an effective method which could be used for all cases and which would be adaptable to mass-treatment methods.

The dry treatment, NSRB says, "meets the criteria better than any other existing method. It is a relatively new regimen, based on the principle of a dry dressing. It furnishes a covering which relieves pain and bars further introduction of pathogenic organisms. Its absorbability will prevent rapid total saturation with exudate which would lead to the necessity for undesirable frequent changes of dressing."

Civil Defense Administration, which came into operation just in time to issue the book after it had been prepared by NSRB, is anxious to get a copy into the hands of every physician and every civil defense worker as rapidly as possible.

The handbook may be ordered by title, *Health Services and Special Weapons Defense*, from Superintendent of Documents, Government Printing Office, Washington 25, D.C. The price is 60¢ a single copy, with a 25% discount in lots of 100.

Every conceivable health phase of civil defense preparation and operation is dealt with, from hospital expansion to morgue identification. Physicians—who will be responsible for detecting and identifying bacteria or gases which may possibly be used—should be particularly interested in chapters on radiologic and biologic defense. Other fields covered include: training and first aid, expansion and improvisation of hospitals, health supplies, water and other sanitation services, laboratory,

(Continued on page 57)

"Just say we're sorry to decline her kind invitation but that I'll gladly hear her symptoms any day between two and four."

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CONSTIPATED PATIENT...

Laxative ACTION WITHOUT REACTION

Phospho-Soda (Fleet) ha
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recognized for its dependabl
efficacy and desirable qualitie
in the treatment of intestina
stasis. In average doses,
produces a soft and formed, rathe
than a watery, evacuation; an
its gentle action is quite free fro
irritation, griping, early tendency towar
habituation, or other adverse reaction
Samples on reques

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While the handbook is only advisory, in the face of enemy attack Civil Defense Administration could be authorized by the President to require communities and individuals to carry out the recommendations.

Nurse Supply Critical

By July 1, all three military services expect to have at least doubled the number of nurses they had on active duty at the first of the year. Some will come from reserves, but the vast majority will be recruited from military-age civilian nurses who have not had previous military duty.

Prospects are that at least 10,000 nurses will be withdrawn from civilian life. This, according to the American Nurses' Association, should more than equal the number of nurses to be graduated this year. Furthermore, Red Cross, Public Health Service, and new civil defense facilities will require many thousands of additional nurses.

Defense planners are attempting to meet both the immediate and the long range problem. One temporary approach, already begun, is the mass training of nurses' aides, with the prospect that many thousands will be ready for service by summer. Operating the way they did in World War II, nurses' aides will permit the supply of registered nurses to be spread thinner as demands increase.

For permanent solution, nurses' organizations and defense officials are prepared to support legislation for federal aid to nursing schools and teaching hospitals. The plan as now described will be a liberal ver-

sion of the nurses' section of the aid to medical education bill, which was allowed to die in the last Congress.

Concurrently, American Nurses' Association is leading two campaigns, one to induce nurses to volunteer for Army duty, the other to replenish the civilian supply by persuading young women to take nurses' training. The association is also urging retired nurses to return to duty, thereby making possible the release of military-age nurses for military service.

Local Public Health Bill

Because of the national emergency, the new bill by Rep. Percy Priest (D., Tenn.) for federal aid to local public health units has a good chance of passage at this session of Congress. The proposal is a revamped version of other bills on the subject, with emphasis on defense areas and a new definition of public health functions, modified to meet criticism of earlier definitions. Authorizations would cease when the current national emergency is declared ended; a state would give priority to defense areas and could start its plan before all sections were included; and the surgeon general would define defense areas, after consulting with other government officials.

States would be allowed various amounts of money, depending on their population and per capita income, all of which would be passed on to the local units. In no case could the federal contribution exceed $2 per capita.

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the country on the advantages of local public health services, was released by Public Health Service at just about the time Mr. Priest introduced his new bill. It undoubtedly will be effective in building up back-home support.

APPOINTMENT of highly competent Rear Adm. H. Lemont Pugh as surgeon general by President Truman was in some respects a surprise. The deputy (Adm. Pugh held the post four years) usually is not elevated.

WITH $3,000,000 from Defense Department, and another $9,000,000 earmarked, Red Cross is able to launch properly a tremendously complicated blood collection campaign. The problem now is to find professional personnel, without unduly interfering with the military services, public health and the Veterans Administration.

JOHN L. THURSTON, who has done a good job for FSA Administrator Oscar Ewing for several years without a title, now is officially Ewing's deputy, with title of assistant.

IN CHALLENGING Mr. Ewing on federal regulations governing assistance to the needy, Gov. Dewey has unearthed an old and never-settled issue: At what point do federal regulations cease to protect federal money and begin to encroach on state prerogatives? The question is raised at one time or another regarding almost every grants program—with a different answer each time.

CHAIRMAN VINSON of House Armed Services Committee indicated he might favor an Air Force Medical Center if proposed in a separate bill. His committee killed the plan when it was a part of another bill.

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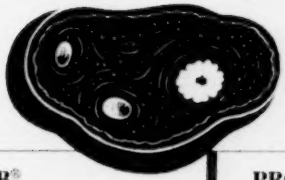

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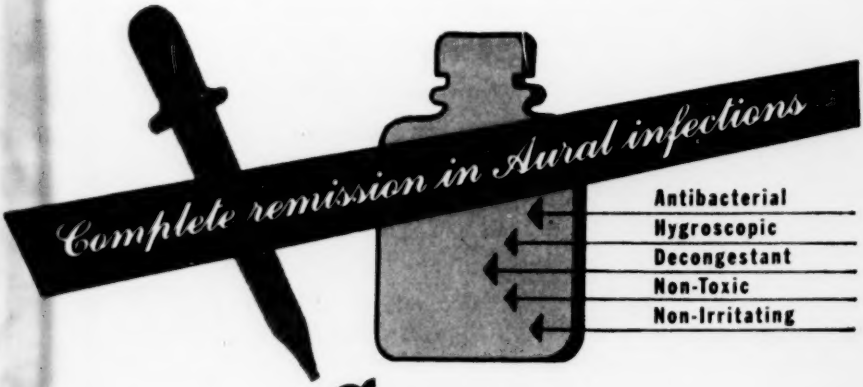

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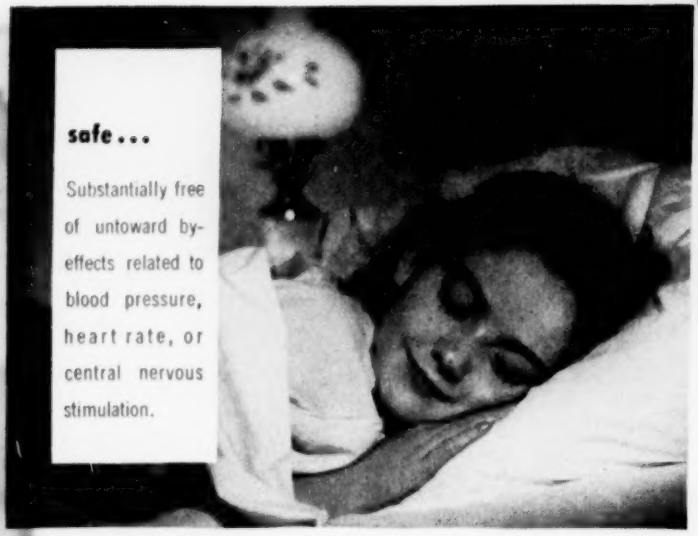

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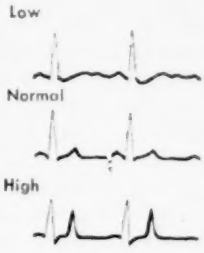
Clinical Physiology of Potassium

WILLIAM S. HOFFMAN, M.D.*
University of Illinois, Chicago

THE human body contains about 160 gm. of potassium, most of which is in tissues, with approximately 2.7 gm. in extracellular fluids.

This unstable balance is probably maintained by the oxidative energy of cells. Relations are constantly upset because serum levels change much faster than cellular concentrations can be shifted through slowly permeable membranes. Radioactive potassium injected intravenously takes fifteen hours to reach an equilibrium with total body concentration.



Electrocardiographic changes produced by changes in serum potassium concentration

The average serum potassium for healthy subjects is 4 to 5.4 mEq. per liter, or 16 to 21 mg. per 100 cc.

Factors tending to raise serum levels are [1] increased potassium intake, [2] oliguria or anuria, [3] tissue breakdown or anoxia, [4] dehydration, and [5] adrenal cortical deficiency.

Serum values are lowered by [1] limited food intake, [2] increased renal excretion through diuresis, acidosis, or adrenal cortical hyperactivity, [3] dilution with potassium-free fluids, [4] vomiting or diarrhea, and [5] glucose uptake by cells.

A healthy adult usually ingests 70 to 100 mEq. of potassium daily, but stores practically none, explains William S. Hoffman, M.D. The renal mechanism is designed to remove a surplus rather than to conserve a deficit.

Gastrointestinal fluids contain high concentrations, the greater part normally absorbed back into the blood. With vomiting or diarrhea, 10 to 20 times the amount ordinarily excreted in feces may be lost, often when intake is poor.

For every gram of nitrogen broken down in destroyed cells, about 2.4 gm. of potassium is released. During starvation, trauma, or disease, the substance may be added to serum faster than the removal rate.

Glycogenesis transports potassium from extracellular fluid into liver and muscle, causing a transient depletion of serum, and the fall may be increased by glucose ingestion, insulin, or epinephrine. If serum concentration is already low, serious symptoms may result, as in familial periodic paralysis.

When potassium is excreted by kidneys or bowel, much is accom-

* Clinical physiology of potassium. J.A.M.A. 144:1157-1162, 1950.

panied by extracellular chloride. Since the loss in anions is made up by rise in bicarbonate, acute potassium deficiency is generally associated with alkalosis. The condition will be exacerbated by administration of sodium chloride and reversed by potassium chloride.

Low serum potassium nearly always means potassium deficiency, though rarely of the corresponding degree. But a deficit may be associated with normal or high serum values, probably owing to tissue breakdown.

The symptoms of hyperpotassemia chiefly involve the heart. The T wave of the electrocardiogram becomes taller, the QRS complex broader, and the P wave may disappear. Since potassium intoxication may occur with severe cellular depletion, replacement must be slow and preferably by stomach.

Low serum potassium broadens the T wave, lengthens the Q-T interval, and depresses the S-T segment. Symptoms include weakness, anorexia, lethargy, bowel distention, and lung edema.

Diabetic acidosis and polyuria result in large potassium losses from serum and body cells. If the patient is seriously dehydrated and acidotic, doses of insulin, isotonic sodium chloride, and sodium bicarbonate or lactate expand extracellular fluid and thus reduce the potassium level. Improved renal function and glycogenesis may then cause further and possibly fatal depletion.

Persons in deep diabetic coma should have potassium chloride by mouth or stomach tube in 2-gm. doses. A liter of intravenous fluid should not contain more than 2 gm. of potassium chloride.

For *infantile diarrhea*, isotonic sodium chloride solution and 5% dextrose are given with blood or plasma. When circulatory and renal functions are restored, Darrow's solution, containing 0.4 gm. of sodium chloride, 0.26 gm. of potassium chloride, and 0.59 gm. of sodium lactate, is injected subcutaneously, or diluted for oral therapy.

To correct *surgical potassium deficit* from tissue injury and alarm reaction, 2 gm. of potassium daily is added to the usual alimentation with saline solutions, dextrose, and amino acid solutions.

Potassium levels with *uremia* may be low, normal, or high, depending on type of renal damage, gastrointestinal reactions, and other factors. Medication containing potassium, often used for uremic acidosis, may be dangerous.

In states of *dehydration*, intravenous infusions should first restore blood volume, oxygen-carrying power, blood pressure, renal circulation, and acid-base balance. Ringer's solution may be employed for the initial injections. With improvement, potassium may then be started by mouth or, if necessary, by vein.

No extensive intravenous potassium management should be undertaken unless adequate laboratory facilities are available for quick potassium determinations. In fact, no program of repair treatment is safe without frequent determinations of urinary volume, specific gravity, *p*H, serum chloride, bicarbonate, sodium, and potassium.

Iron Deficiency Anemia

DANA C. MITCHELL, JR., M.D., AND O. B. MAYER, M.D.*
Columbia, S.C. *U.S. Army Hospital, Fort Jackson, S.C.*

UNTIL proved otherwise, iron deficiency always means blood loss and may well be the only symptom of a serious disease.

Dana C. Mitchell, Jr., M.D., and O. B. Mayer, M.D., point out that, since iron deficiency is a symptom not a disease, treating the state without searching for the etiology is not justified.

Anemia may be elucidated by determining the red blood cell count, the hemoglobin, and the hematocrit. From these may be calculated the blood indexes (see table), which indicate the size of the red cell, the amount of hemoglobin therein, and the degree of hemoglobin saturation of the individual erythrocyte.

Iron deficiency anemia is typically hypochromic microcytic, and the mean corpuscular volume, the mean corpuscular hemoglobin, and the mean corpuscular hemoglobin concentration are all reduced. In general, a deficiency of iron is the basis of all hypochromic microcytic anemias.

Unless blood loss is evidently external, iron deficiency anemia usually results from gastrointestinal hemorrhage. Stools should be examined repeatedly for occult blood by means of the guaiac test, which is a simple office procedure and, if positive, denotes significant organic bleeding.

When iron deficiency anemia is the consequence of intermittent occult blood loss, chronic duodenal ulcer, hiatus hernia, and ulcerative carcinoma of the gastrointestinal tract are some of the common causes that must be considered.

After maturity is reached, women require sufficient iron supplies to replace blood lost in menses, while men need only comparatively small

MEASUREMENT OF SIZE AND HEMOGLOBIN CONTENT OF RED CORPUSCLES

		Normal
Color index	Hemoglobin, % (gm. per 100 cc. x 6.9) Red cell count, millions per cmm. x 20	100
Mean corpuscular volume	Volume packed red cells, cc. per 1,000 cc. Red cell count, millions per cmm.	86-91 cubic microns
Mean corpuscular hemoglobin	Hemoglobin, gm. per 100 cc. Red cell count, millions per cmm.	27-31 micromicrograms
Mean corpuscular hemoglobin concentration	Hemoglobin, gm. per 100 cc. x 100 Volume packed red cells, cc. per 100 cc.	32-36%

* The diagnosis and clinical significance of iron deficiency anemia. J. South Carolina M. A. 65:345-347, 1950.

amounts. Hence, iron deficiency in a man nearly always means blood loss.

Contrary to previous theories, achlorhydria may aggravate iron deficiency but is rarely the cause.

The most economical and effective method of treatment for iron deficiency is ferrous sulfate, 5 gr., three or four times daily. Liver, folic acid, and vitamin B_{12} are not necessary for restoration of iron deficiency, nor does molybdenum, copper, or ascorbic acid increase the absorption or utilization of iron.

The body does not readily excrete iron; practically none is lost in the urine; the total loss, less than 1 mg. daily, is in the bile and stool. This amount apparently cannot be exceeded except by bleeding. Hence, excessive quantities should not be given. Intravenous administration is rarely justified and may lead to excessive iron accumulation and, possibly, hemosiderosis.

¶ PROCAINE AMIDE (Pronestyl) may prevent arrhythmias occurring with upper abdominal or thoracic surgery or with coronary occlusion. The drug depresses blood pressure less than procaine hydrochloride and is hydrolyzed slowly. J. Murray Kinsman, M.D., and associates at the University of Louisville, Ky., find that procaine amide converts ectopic ventricular contractions and paroxysmal ventricular tachycardia to normal sinus rhythm. Nodal tachycardia and ectopic auricular contractions are apparently relieved to some extent by procaine amide.

J. Kentucky M. A. 48:509-511, 1950.

¶ FUNNEL CHEST produces typical changes in electrocardiograms. In 8 of 13 cases, William Dressler, M.D., of New York City and Hugo Roesler, M.D., of Philadelphia, found inverted or notched T deflections in multiple precordial leads and also noted the patterns of right ventricular strain. With deep sternal depression and cardiac displacement to the left, features of lead 1 resembled those of dextrocardia. Precordial pain and T inversion in right precordial leads might therefore be wrongly attributed to coronary disease.

Am. Heart J. 40:877-883, 1950.

¶ ATYPICAL PNEUMONIA subsides with aureomycin therapy more rapidly than with sulfonamide or penicillin. Effects of the drugs were compared by Emanuel B. Schoenbach, M.D., of Johns Hopkins University, Baltimore, and associates. In 22 cases observed at Sinai Hospital, Baltimore, in 1946 and 1947, the average febrile period with the earlier antibiotics, alone or together, averaged thirteen days from onset. Aureomycin given to 33 patients in 1948 and 1949 shortened duration of fever to about eight days.

New England J. Med. 241:799-806, 1950.

Management of Bacterial Pneumonias

HARRISON F. FLIPPIN, M.D., AND HAROLD L. ISRAEL, M.D.*
University of Pennsylvania, Philadelphia

PENICILLIN, relatively inexpensive and of low toxicity, is the most effective antibiotic against pneumonia caused by pneumococci and other cocci and for most cases of the disease caused by other bacteria.

Aureomycin, chloramphenicol, or terramycin may be considered as the drug to use for infections due to *Hemophilus influenzae, Klebsiella pneumoniae, Bacillus tularensis,* and *Brucella,* as well as mixed infection. Moreover, because of the difficulty in differentiating bacterial from viral infections, against which penicillin is ineffective, the tendency is increasing to employ one of these antibiotics as initial treatment for all pneumonia.

Although the pneumococcus remains the most common invader of the lungs, the incidence of classical pneumococcal pneumonia is diminishing, observe Harrison F. Flippin, M.D., and Harold L. Israel, M.D. Meanwhile, pneumonia from gram-negative bacteria, viruses, and rickettsiae is increasing in frequency.

Streptomycin, uniquely valuable for tuberculous pneumonia, is useful for therapy of Friedländer's, tularemic, and influenzal pneumonia and may be an adjuvant to other antibiotics in the treatment of patients with pulmonary brucellosis.

Typhoid pneumonia should preferably be treated by chloramphenicol, which is attended by fewer gastrointestinal side effects than aureomycin.

DIAGNOSIS

Pneumococcal pneumonia is distinguished from other pulmonary infections by the explosive onset, more massive lung involvement, and relatively rapid resolution of the disease. Roentgenograms are desirable to demonstrate the extent and intensity, not the etiology of the involvement. Multiple cavities seen by roentgenology are frequently caused by staphylococcic or *Klebsiella* pneumonia.

The isolated organism should be tested against the specific therapeutic agents. Blood culture, obtained before therapy is instituted, may identify the causative organism when many bacteria are found in the sputum.

Total and differential white blood cell counts should be made preferably before therapy is started. A high initial white cell count which diminishes rather rapidly after forty-eight hours of treatment is usually of good prognostic import, just as the failure of a low count to rise is generally a poor prognostic sign. Although not diagnostic, the white blood cell count is often helpful in distinguishing bacterial from viral infection.

Therapy should be instituted as

* Management of bacterial pneumonias. M. Clin. North America 34:1653-1666, 1950.

soon as the clinical diagnosis is made and blood and sputum samples have been collected. Antibiotics may be changed when the specific organisms have been determined.

THERAPY

Penicillin—Four penicillin preparations are commonly employed:

1] Crystalline benzyl penicillin in aqueous solution, 100,000 units administered intramuscularly, reaches a peak plasma concentration of 3 units fifteen to thirty minutes after administration and maintains a therapeutic level for three hours. In treating bacterial pneumonias, injections should be made every eight to twelve hours. This method of dosage is cheap and rapid acting, has the shortest duration of toxic reactions and the highest peak level with consequent greatest diffusion into serous cavities and abscesses, but is inconvenient for home use since two to three daily injections are required.

2] Procaine penicillin with sodium carboxymethylcellulose in an aqueous suspension (Crystacillin), 300,000 units administered intramuscularly, has a peak level of 1 unit two hours after injection with a therapeutic level lasting twenty-four hours. Doses are given every twelve to twenty-four hours. Most economical for routine hospital use, this preparation requires only one daily injection for most infections but does not yield high plasma levels.

3] Procaine penicillin with aluminum monostearate in oil, 300,000 units administered intramuscularly, attains a peak level of 0.5 units one hour after injection and maintains a therapeutic concentration for forty-eight hours, frequently for ninety-six. Injections are given forty-eight hours apart. Although most convenient for home administration, this preparation occasionally produces prolonged toxic and allergic reactions to the penicillin, procaine, or oil.

4] Penicillin, buffered, 200,000 units in oral tablets, yields a peak of 0.4 units thirty minutes after administration, with the therapeutic level lasting three hours. Tablets are taken every three hours. Although easily administered, this preparation is expensive and causes toxic reactions more frequently than the others.

The parenteral route is the most reliable during the first forty-eight hours of therapy for pneumonia, since some oral preparations are not absorbed consistently. The two penicillin schedules which seem most useful in treatment of pneumonia are the aqueous form intramuscularly in 100,000-unit doses every eight to twelve hours, or procaine penicillin in daily injections.

Streptomycin—When treating acute pneumonia for short periods, streptomycin may be used in doses of 0.5 gm. four times daily without fear of toxicity. For tuberculous pneumonia, 1 gm. a day is adequate and is administered in combination with para-aminosalicylic acid, which retards the emergence of streptomycin-resistant strains.

Aureomycin—The gastrointestinal irritation produced by oral use of aureomycin may necessitate lowering the dosage to ineffective levels or discontinuing the drug. Antacid and

aluminum hydroxide preparations, which help to alleviate the gastrointestinal distress, materially lessen the plasma concentrations of aureomycin.

For bacterial pneumonia, the usual dosage of aureomycin is 1 to 2 gm. daily for adults, in divided doses at six-hour intervals. The antibiotic may be administered intravenously in doses of 0.5 gm. every twelve hours. The buffered solution is either injected slowly, directly or added to an infusion of isotonic saline or glucose.

Chloramphenicol—When given to seriously ill patients, an initial loading dose of 60 mg. of chloramphenicol per kilogram of body weight may be given in two or three parts at hourly intervals. Thereafter, 250 mg. is taken every three to four hours for as long as a week after the patient is afebrile. With less severe pneumonia, 25 mg. per kilogram of body weight daily is adequate, in doses of 250 mg. every four to six hours for four or five days.

Terramycin—The dosage of terramycin is 250 mg. every four to six hours.

Sulfonamides—The sulfonamides are largely relegated to pediatric practice, since serious complications, especially periarteritis nodosa and lower nephron nephrosis, may occur when such drugs are given to adults. Used mainly as adjuvants to the antibiotics for desperately ill patients, the sulfonamides are best given in combination, either a mixture of sulfadiazine and sulfamerazine, or a triple mixture of these and sulfamethazine.

COMPLICATIONS

Small and moderate sized pleural effusions are not infrequent during therapy and are sterile. Many of these effusions will resorb with continued systemic antibiotics.

Large accumulations of fluid, however, require repeated thoracentesis, and, if persistent, may be treated only by obliteration of the pleural space with resultant expansion of the lung. If the lung has become incarcerated in a fibrinous envelope, either surgical decortication or the fibrinolytic enzyme, streptodornase, should be used. The latter is introduced into the effusion and allowed to exert fibrinolytic activity for twenty-four hours, at which time a thorough aspiration is performed.

Current management of empyema consists of daily aspiration and instillation of 50,000 units of penicillin in addition to high level systemic penicillin therapy. If the lung does not expand, enzymatic decortication with streptodornase should be attempted. When medical therapy is unsuccessful, surgical decortication is indicated.

Most lung abscesses complicating pneumonia can be eradicated by systemic antibiotic therapy employing penicillin or other antibiotics in high dosage. If these methods fail to close the abscess cavity, thoracotomy and pulmonary resection may be done with greater safety and better preservation of pulmonary function than could have been achieved by surgical drainage.

Meningitis, a relatively uncommon complication of pneumonia, may require intrathecal penicillin for cure. If acute bacterial endocarditis com-

plicates the pneumonic process, adequate doses of antibiotics should be administered before extensive valvular damage occurs, and chemotherapy should be continued for at least four weeks. Purulent pericarditis is treated by local instillation of penicillin as well as systemic administration in high dosage. The characteristic electrocardiographic pattern of pneumococcal pericarditis shows extremely high ST segments.

Liver Tests in Congestive Heart Failure

LEONARD FELDER, M.D., ALVIN MUND, M.D.,
AND JULIUS G. PARKER, M.D.*

DEFINITE impairment of liver function occurs with congestive heart failure, but the pattern is not pathognomonic. The exact basis for the change is unknown.

Ten liver function tests were evaluated in a study of 135 cases of protracted congestive heart failure by Leonard Felder, M.D., Alvin Mund, M.D., and Julius G. Parker, M.D., of Montefiore Hospital, Bronx. Two or more different tests were performed for each patient, and half the patients were given at least seven. The bromsulfalein and serum bilirubin determinations were found to be the most sensitive.

No significant differences were noted when the etiology of the heart disease was considered. Duration of heart failure or type of rhythm did not alter the results nor did the nutritional status of the patients produce significant change.

Bromsulfalein clearance was abnormal in 85% of the determinations, while thymol *turbidity* was found to be so in only 31%.

The *alkaline phosphatase* was elevated in 46% of all determinations and in 83% of the cases of cardiac cirrhosis autopsied.

Serum bilirubin was increased in 52% of the tests performed; 60% of the patients with cardiac cirrhosis had abnormal values.

With *serum cholesterol*, a significant difference existed between the rheumatic and nonrheumatic persons; the former had 55% abnormal values and the latter only 28%. *Cholesterol ester* findings tend to parallel the cholesterol results.

The *total plasma proteins* were quantitatively abnormal in 29% of determinations; 26% of the patients had less than 3 gm. of *albumin* per 100 cc. *Plasma globulin* was elevated in 18%.

Cephalin flocculation was abnormal in 22% of determinations and showed a slight increment for the malnourished patients.

* Liver function tests in chronic congestive heart failure. Circulation 2:286-297, 1950.

Hematology in Atomic Bomb Syndrome

GEORGE V. LE ROY, M.D.*
Northwestern University, Chicago

THE most dependable guide to diagnosis and treatment of human victims of atomic bomb radiation is the changing leukocyte count. In an emergency, additional tests may be limited to determinations of hemoglobin, hematocrit, and protein by the copper sulfate method.

The course and severity of radiation injury generally correspond with the blood picture, particularly with leukopenia. The important symptoms become evident about the time of the lowest white cell count. Japanese physicians believe that recovery is unlikely when leukocytes are fewer than 500 per cubic millimeter.

Onset and extent of a hemorrhagic tendency closely follow thrombocyte depletion, which also parallels leukopenia. Red blood cells vary less consistently and are less useful for diagnosis or prognosis.

In the interests of national defense, permission has been granted to publish the detailed hematologic report of the Joint Commission formed by the U.S. Army and Navy to review atomic bomb effects in Japan. Data of special importance are summarized by George V. LeRoy, M.D., consultant to the U.S. Atomic Energy Commission.

Material was gathered from three sources: early blood examinations of casualties by Japanese physicians, examination of survivors by the Joint Commission, and hematologic surveys in hospitals. Although some work was done under extremely unfavorable conditions, results obtained by the various groups agreed remarkably well.

Subjects were classified in two main groups, [1] those with radiation injury evident from symptoms, and [2] patients who were exposed to comparable amounts of radiation and lived at least twenty days.

Radiation injury is shown by two specific signs, epilation and purpura, and by three important suggestive symptoms: vomiting on the day of bombing; mouth and throat lesions, such as ulceration and gingivitis within thirty-nine days after exposure; and hemorrhagic manifestations other than purpura.

Degree of exposure can also be judged by distance from the point directly under the bomb and by type of shelter. People outdoors or in wooden buildings within 1,100 yd. of the explosion center usually die within a week or two, and 50% of those between 1,100 and 1,650 yd. away die in three to six weeks. At a distance of 2,200 yd., injury is slight.

Serial leukocyte counts of severely injured patients in hospitals agree with those of the same type classified by symptoms or by distance from the bomb. Leukopenia is most pro-

* Hematology of atomic bomb casualties. Arch. Int. Med. 86:691-710, 1950.

nounced in the third to fifth weeks after exposure and disappears during the eighth to tenth weeks.

In those who die of radiation injury in the first two weeks, however, leukocyte counts usually drop below 1,000 and may be 50 or less.

The number of thrombocytes of seriously affected persons average about 105,000 during the fourth week, when bleeding time is twelve minutes, forty-five seconds and clotting time six and a half minutes. In fatal cases the level drops to 50,000 or less in the third to sixth weeks.

The lowest hemoglobin values are noted in the sixth to eighth weeks and rising levels after the ninth week. Red cells are enlarged during recovery, probably owing to reticulocytosis.

Among those gravely ill who live at least twenty days, epilation begins about the twentieth day, and purpura on the twenty-fifth. The third to fifth weeks are critical.

Rapid Warming and Prolonged Massage for Frostbite

WAYNE G. BRANDSTADT, M.D.*

RUSSIAN investigators, in a symposium on frostbite, advise several measures traditionally banned. Col. Wayne G. Brandstadt, M.C., U.S.A., Washington, D.C., reviews the methods.

Flesh of living men almost never actually freezes. Frostbite results from prolonged low temperature but does not reach beyond ankle and wrist joints, and blood changes are due to venous stasis. The more rapidly a frostbitten extremity is rewarmed, the less necrosis will develop.

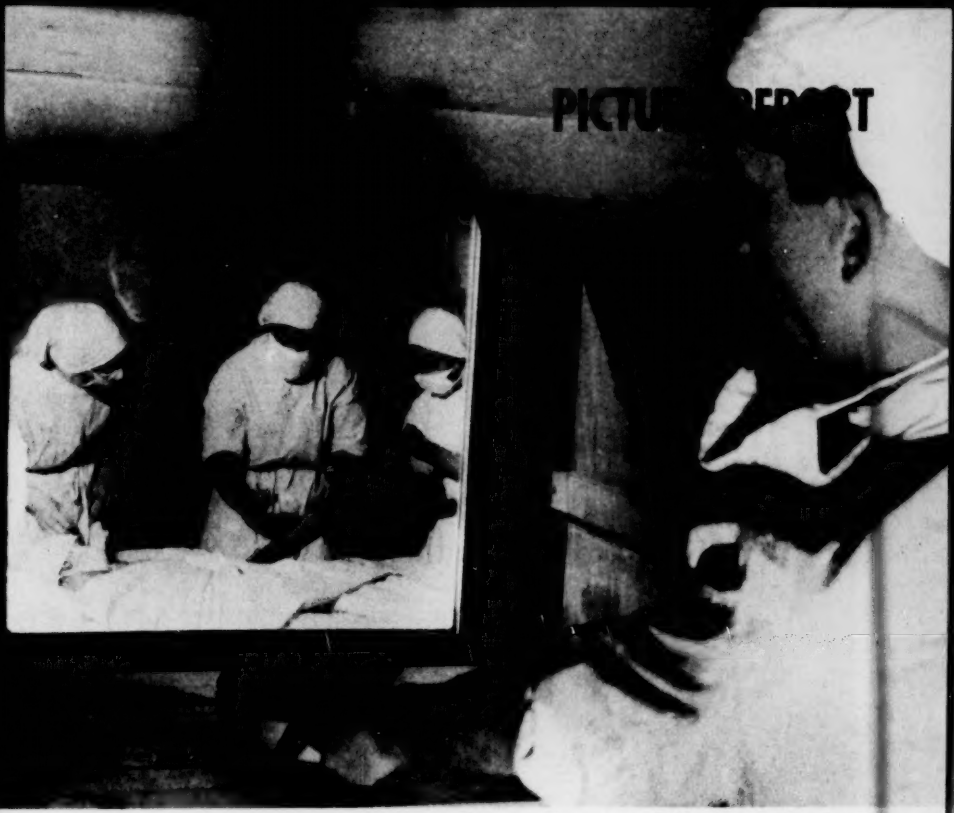
Therefore, affected tissue should be rewarmed as quickly as possible by baths and massage. Since overheating is dangerous, temperature of the bath should never exceed 98.6° F. Artificial respiration may be required.

Hyperemia is encouraged by intravenous injection of 10% calcium chloride solution, a total of 15 cc. in 5-cc. doses at intervals of ten minutes. Hot drinks are administered.

Prolonged massage is given in a way that avoids injury. The skin is wiped with alcohol swabs, the body is tightly wrapped in a sterile towel, then vigorously rubbed through the towel with the open palm. If treatment is delayed for several hours, inflammation develops and tissues need rewarming and rest with no massage.

After initial therapy of first-degree frostbite, the skin is rinsed with 5% tannic acid–alcohol solution or painted with 2% solution of brilliant green. During the first three or four days, a sunlamp is used for ten- or fifteen-minute exposures.

* Frostbite. Mil. Surgeon 107:386-388, 1950.



Photos By Courtesy of British Information Services

STRICT ASEPSIS is observed in dressing burns. This view shows the air-conditioned dressing station at Birmingham, England, through a window in the sterilizing room.

Burns Unit in British Hospital Gets Results

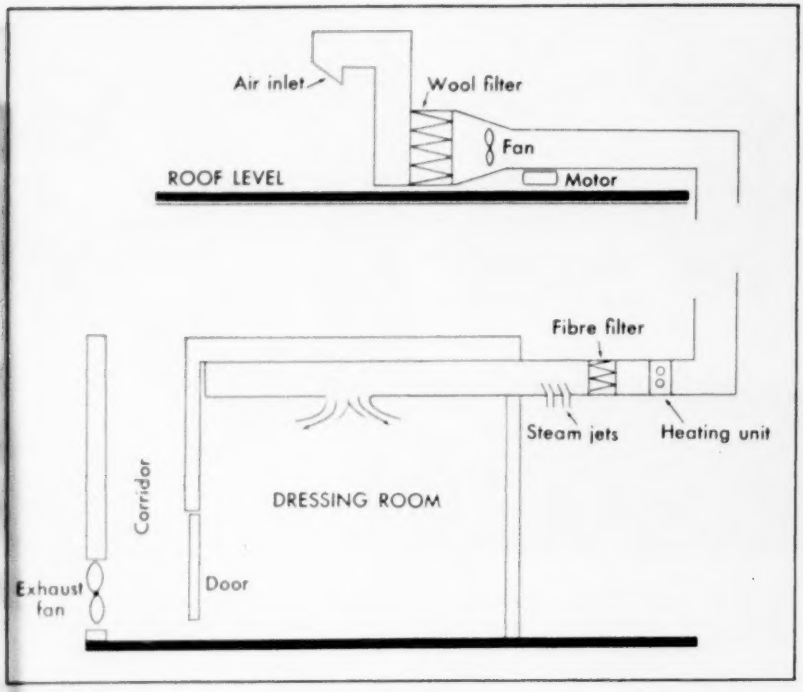
DISSATISFIED with results being obtained in the treatment of burns, the Medical Research Council of Great Britain, in 1944, established a Burns Research Unit at the Accident Hospital in Birmingham, England.

After six years some of the answers are still missing. But progress has been made and the unit is continuing its study in an effort to effect speedier and more satisfactory results in the treatment of burns and scalds.

Measurable benefits have already been obtained. Mortality from severe burns has been reduced. Healing time has been shortened. Functional and cosmetic results have been progressively improved. These achievements have been brought about, not by revolutionary discoveries, but by attention to details, refinement of technics, and vigorous application of

lessons learned through painstaking research and the analysis of thousands of case records.

To head the original unit with gists, biochemists, and nurses to evaluate the current methods of treatment and to develop means of obtaining better results.



AIRBORNE INFECTION is prevented by a specially designed dressing room. Air from a roof vent, filtered, warmed, and moistened, is introduced through ceiling vents. An exhaust fan draws stale air under the door and out through the other side of the corridor, thus removing any organisms liberated by the loosening of dressings.

thirty-eight beds and cots at Accident Hospital, the Medical Research Council selected Dr. Leonard Colebrook who had already gained some renown by his pioneering of the use of sulfonamides for the control of puerperal sepsis.

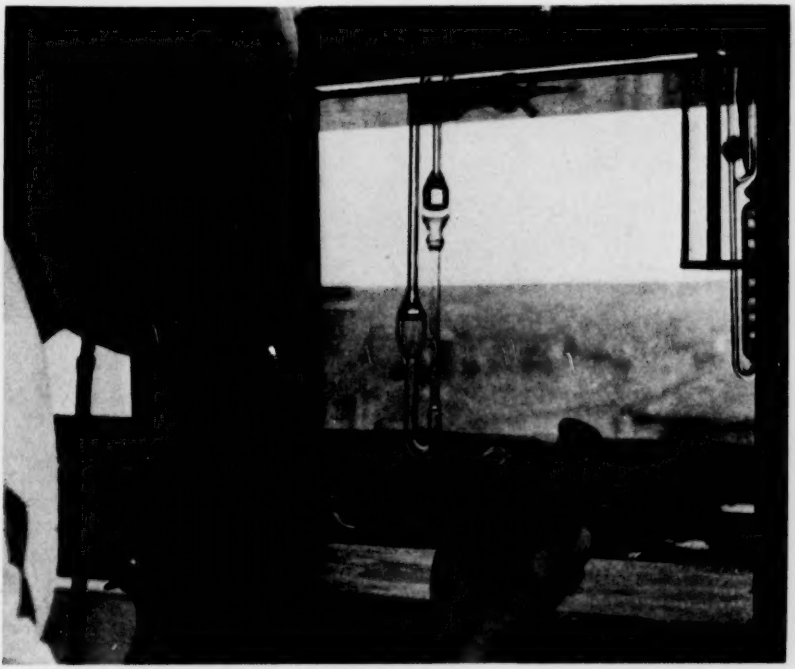
Dr. Colebrook organized a research team of surgeons, bacteriolo-

The gravest danger to the life of a severely burned patient is the initial shock. This must be counteracted immediately. Transfusions of human plasma effectively maintain the normal circulation of the blood and replace fluids lost from the body. When human plasma is not available, Dextran, a manufactured pro-

duct, may be used. The Burns Unit has found Dextran an excellent substitute.

Apart from the fluid lost during the period of the initial shock from a severe burn or scald, the burn oozes continuously until healed. With a large burn, much of the body's store of protein may be lost. This deficit is replaced by a diet rich in protein foods, such as meat, milk, and eggs. Otherwise the patient loses weight and becomes weakened. Anemia, a common complication of burns, especially if burns are infected, is prevented by blood transfusions.

When antishock therapy is successful, infection is a big problem. From the first, Dr. Colebrook's team attempted to treat burns under conditions which would eliminate both contact and air-borne infections. Dr. Colebrook, believing that most of the sepsis of burns results from infection in the hospital and can be prevented if the proper conditions and the appropriate routine are established, set up two objectives: [1]

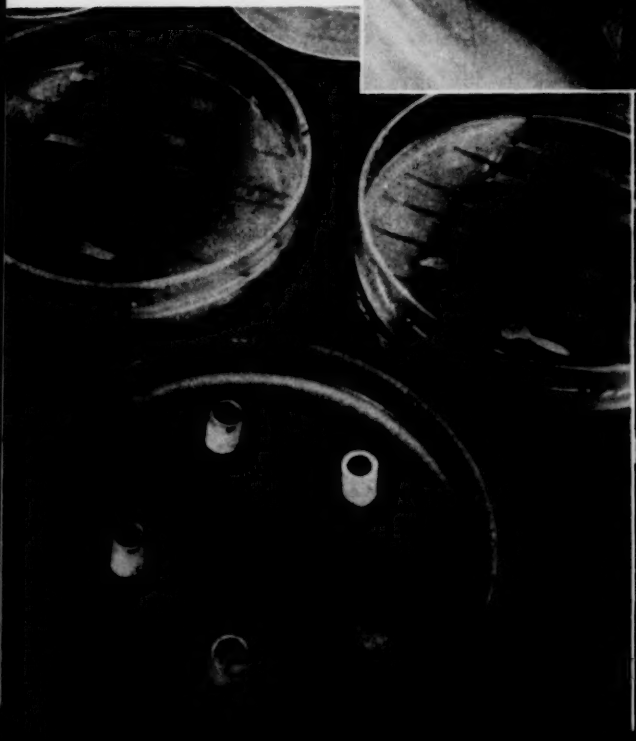


TRANSFUSIONS are essential to combat shock. Dextran is used as a plasma substitute at the Accident Hospital. Here a doctor is testing the viscosity of a new batch of Dextran with a viscometer suspended in a thermostat bath.

(Continued on page 81)

A BACTERIOLOGIC SWAB is taken from each burn *(inset)* and placed in a test tube. Organisms are cultured from each swab. The technician above is transferring some of the cultured organisms onto a fresh plate for further growth. Cultures are then tested for sensitivity to antibiotics. The culture plates contain a nutrient substance consisting of 5% horse serum in agar.

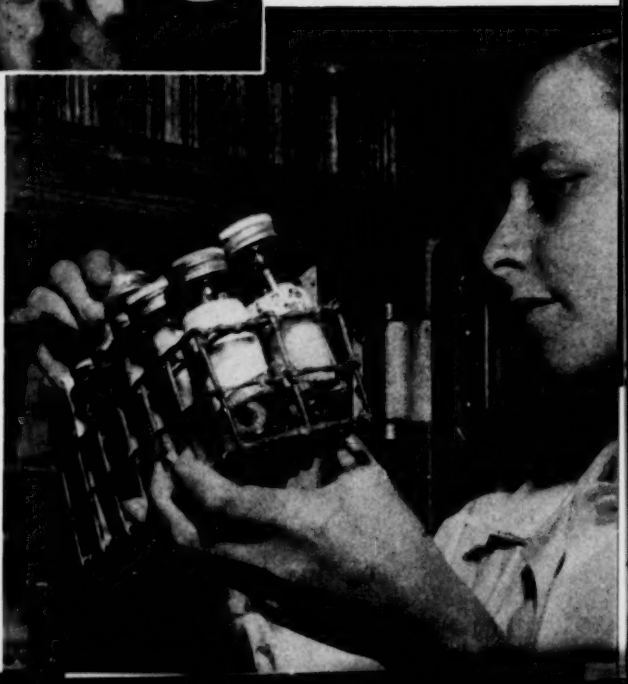
THE ANTIBIOTIC that is most effective against the cultured organisms is then selected *(right)* for treatment of the burn from which the swab was taken. The comparative effects of aureomycin and penicillin are demonstrated in the culture plates below. The two plates which have nutrient bands across the centers, with ditches on either side, contain aureomycin in the right ditches and penicillin in the left channels. The plate in the foreground is covered with staphylococci except for the two clear zones which surround the cups of penicillin. Solutions in the remaining three cups have had no deterrent effect in staphylococcic growth. At the lower left, the technician in charge of the media preparation room fills sterilized tubes with nutrient broth.



GRAFTING is not essential with all severe burns but, when necessary, is most effective if done promptly. Formerly a delay of three or four weeks was required to distinguish between burned areas that would heal spontaneously and those that would require grafting. Now, by determining the sensation to a pinprick, decision as to treatment may be made at the first examination. At the left the use of the apparatus for the pinprick test is demonstrated. A sensation-testing needle is used for immediate determination of the depth of skin loss. From the degree of impairment of sensation the physician is able to decide whether grafting is necessary before the slough. The prick cannot be felt if the burn has destroyed the nerve endings. If sensation is gone, grafting is done at once.

SPARE GRAFTS are not discarded but are stored in a refrigerator to be used later if necessary. The skin remains viable for several weeks. Grafts from each donor are separately labeled and dated and are ready for immediate use if the area of total loss is more extensive than was initially apparent. The bottles containing the donor skin are arranged in racks similar to the one the technician at the right is holding.

Photos on pages 75 to 79 supplied by the British Information Services



GOOD MORALE is an important consideration and may be helped by amenities such as an occasional glass of beer. The man above has a tube pedicle graft which has been raised on his back and transferred to his arm.

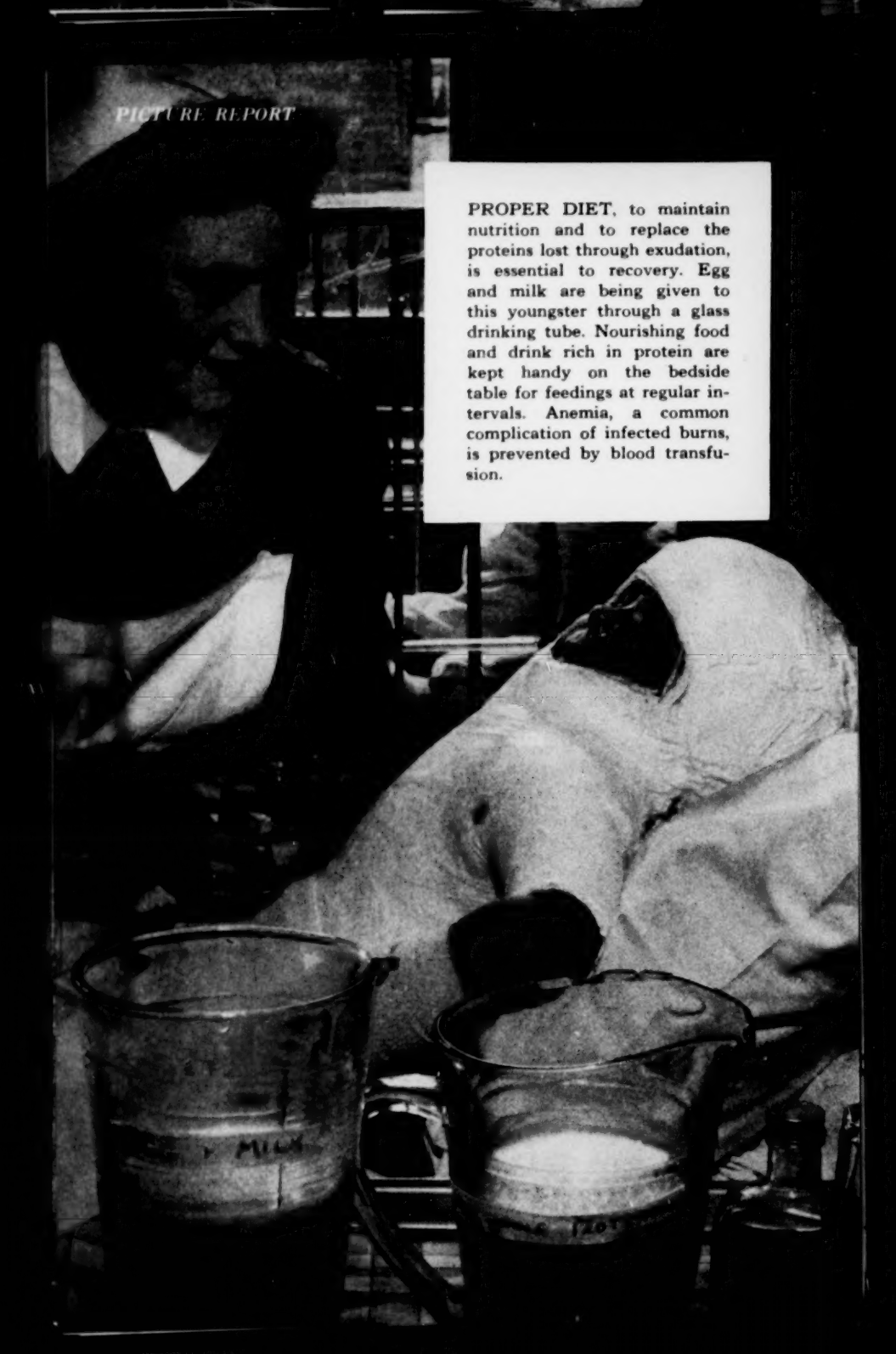
to block transmission of pathogens to burns at the time of dressing, and [2] to block transmission of organisms to the burns between one dressing and the next.

By 1948, the first of the objectives was attained. A special room ventilated by an abundant stream of filtered air was built for the dressing of burns. The dressing station was supplied constantly with filtered bac-

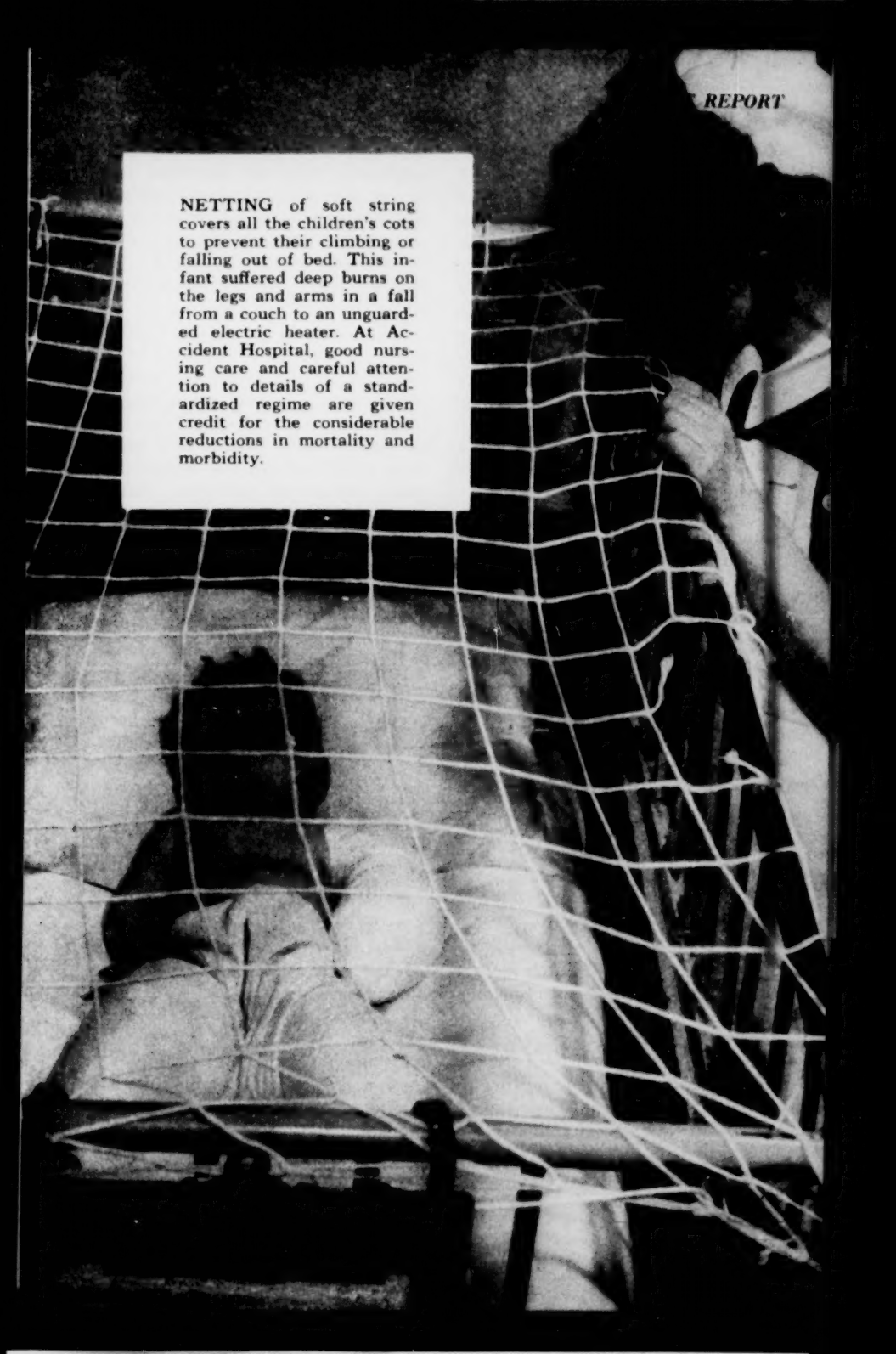
(Continued on page 86)

DEEP BREATHING exercises may be necessary if the patient's chest is encased in a plaster cast. Bubble blowing makes the exercise fun for this 6-year-old and is good for her morale as well as for her lungs. Thus recovery is speeded psychologically and physiologically.

EDEMA with arm burns that require pressure dressing and a plaster cast is minimized by a ring embedded in the cast so that the limb may be easily suspended by a pulley arrangement. Healing is hastened and skin grafts usually "take" better when edema is controlled.



PROPER DIET, to maintain nutrition and to replace the proteins lost through exudation, is essential to recovery. Egg and milk are being given to this youngster through a glass drinking tube. Nourishing food and drink rich in protein are kept handy on the bedside table for feedings at regular intervals. Anemia, a common complication of infected burns, is prevented by blood transfusion.



NETTING of soft string covers all the children's cots to prevent their climbing or falling out of bed. This infant suffered deep burns on the legs and arms in a fall from a couch to an unguarded electric heater. At Accident Hospital, good nursing care and careful attention to details of a standardized regime are given credit for the considerable reductions in mortality and morbidity.

teria-free air from an air-conditioning plant. An exhaust fan was installed to carry away any dangerous organisms liberated into the air during the removal of soiled dressings. Thus the air in the dressing station is always pure and clean when the next patient arrives. All dressings are done by a trained team using a strict aseptic technic.

Of the 734 patients treated in the dressing station through 1948, less than 1% were infected with the hemolytic streptococcus and *Pseudomonas pyocyanea* at the time of dressing.

To prevent infection while the patient is in the ward, a layer of penicillin cream is spread on the burn and covered by a thick protective wrapping of gauze and cotton, securely bandaged to form a dressing almost impenetrable by bacteria.

The majority of infections transmitted between one dressing and the next occur with burns difficult or impossible to cover adequately. Another source of infection is the dressing soaked with serous exudate during the first few days after burning. Pathogens conveyed to the outer dressing from the air or bedding are able to grow through the dressing and so infect the burned areas.

In the laboratories attached to the Burns Unit, much research work is being done to devise a dressing that will seal a burn against infection. One such dressing is nylon film which will allow perspiration from the skin to evaporate without permitting the entry of moisture and infection to the burn. The use of cellophane as a barrier to the growing through of the bacteria has also been suggested.

Because infection has not, thus far, been entirely prevented, chemotherapeutic control of infection is of great importance. Investigations are pursued constantly in the laboratories of the unit to find the antibiotics most effective against the organisms likely to infect burns. Streptococcic infections have proved to be the least difficult to control because they can be quickly eliminated by local application of penicillin or the sulfonamides. Polymyxin is being used with some success against *Ps. pyocyanea* which sometimes causes harmful infection.

When infection is prevented or eliminated, superficial burns, in which only the partial thickness of the skin is burned through, heal rapidly.

In other cases, prompt surgical attention is essential to good recovery of function. When the complete thickness of the skin has been destroyed, the burn or scald must be grafted if healing is to be quick and deformity prevented. Grafts are taken from unburned areas of skin. Donor areas heal rapidly, leaving no scars.

Grafting is done as soon as the surgeon can distinguish between the partial loss areas, which will heal spontaneously, and the complete loss areas, which will not. Formerly, differentiation of these areas had to wait three to four weeks until the dead skin had sloughed naturally, leaving a raw area behind.

Now, however, Dr. John Bull has found a method which helps in immediately distinguishing one from the other by testing the reaction

of the burned skin to a pinprick. In a deep burn the prick of the pin cannot be felt because the nerve endings in the skin are destroyed; in a superficial burn the nerve endings are intact and the pin can be felt. Such knowledge is of the greatest assistance to the surgeons who are enabled in many instances to identify and remove areas of dead skin on the day the burn occurs and to proceed at once with skin grafting. In this way healing is greatly speeded.

At present, the Burns Unit at Birmingham is unique in Britain. Eventually similar projects are expected to be developed in other city health centers. Meanwhile work continues at Birmingham to lay down standards of treatment which other units might follow. Dr. Colebrook retired in 1948, but the investigations he initiated are being continued under his successor, Dr. John R. Squire, Leith Professor of Experimental Pathology, University of Birmingham.

Surgical Treatment of Gigantic Hernias

SIDNEY E. ZIFFREN, M.D., AND NATHAN A. WOMACK, M.D.*

CREATION of an abdominal incisional hernia before definitive repair of gigantic hernias is proposed by Sidney E. Ziffren, M.D., and Nathan Womack, M.D., of the State University of Iowa, Iowa City.

Formation of such a temporary hernia allows the peritoneum to stretch, creating space, and prevents the respiratory difficulty and circulatory embarrassment so often resulting from pressure upon the diaphragm and on the portal or renal venous systems when a large mass of bowel is replaced into the abdominal cavity. After adjustment to pressure, the incisional hernia is closed.

A long transverse incision is made in the upper abdomen through skin, fascia, muscles, and transversalis fascia down to the peritoneum, allowing the peritoneum to bulge into the wound. The skin incision is then closed with a continuous subcuticular suture of No. 0000 steel wire and some interrupted No. 0000 silk. Bowel and omentum of a huge inguinal, umbilical, or diaphragmatic hernia are then easily replaced into the abdominal cavity, and repair of the hernia is done. With inguinal hernias, the testicle on the involved side may be removed and the internal ring closed tightly, with reinforcement of imbricated fascia.

Approximately twelve days later, a nasal tube is passed into the small bowel and the incisional hernia is repaired. The margins of the fascia are easily brought together with No. 000 steel wire. The nasal tube is removed on the second postoperative day.

* An operative approach to the treatment of gigantic hernias. Surg., Gynec. & Obst. 91:709-710, 1950.

Surgical Management of Indurated Leg

EUGENE L. LOWENBERG, M.D.*
Norfolk General and De Paul hospitals, Norfolk, Va.

CONSERVATIVE therapy has little value in cases of chronic indurated cellulitis of the leg, the end result of lymphedema from recurrent thrombophlebitis, lymphangitis, or local trauma.

Eugene L. Lowenberg, M.D., removes widely all the abnormal structures of the involved area, including subcutaneous tissue, fascia, and devitalized or ulcerated skin, and covers the defect with a graft resting on well-vascularized muscle. Any existing venous stasis is corrected simultaneously.

With relatively healthy overlying skin—A longitudinal skin incision is made across the center of the induration from the lower to the upper limits and carried down through the subcutaneous tissue and fascia, exposing the underlying muscle (Fig. 1*a*).

By a line of cleavage just within the skin edge, the entire segment of diseased fat and fascia is excised by blunt and sharp dissection (Fig. 1*b*). Any incompetent perforating veins encountered are clamped, divided, and ligated. Penrose tissue drains are brought out through stab wounds in the posterior flap. The skin edges are trimmed back to viable tissue and approximated with interrupted sutures of silk (Fig. 1*c*).

The dressing consists of a thick roll of gauze from foot to knee and an Ace bandage. The drains are removed in forty-eight hours, the sutures in about ten days. Patients may be ambulatory in about a week.

With unhealthy overlying skin—Any abnormal overlying skin is always removed and skin edges are tacked about the excised area to the muscles beneath.

A split-thickness graft from the thigh is used to cover the defect. The grafted area is dressed with Xeroform gauze, flat gauze moistened in saline solution, and a wide piece of sponge rubber for even pressure. The leg is immobilized for about a week in a foot-to-knee posterior splint. The dressing is changed on the seventh or eighth day, and healing is usually complete by the fourteenth.

With indolent leg ulcer—Preoperative treatment with parenteral penicillin supplemented by penicillin-urethane solution or tyrothricin solution locally is usually necessary for associated chronic ulceration. The ulcer is covered with gauze and the entire area, with surrounding skin, is excised (Fig. 2).

After the operation, the dressing should be kept moist by injecting glycerine, 15%, acetic acid, 0.5%, saline solution every eight hours through catheters enclosed in the

* The surgical management of chronic indurated cellulitis of the lower extremity (the indurated leg). Surgery 28:852-850, 1950.

Operation for Indurated Leg

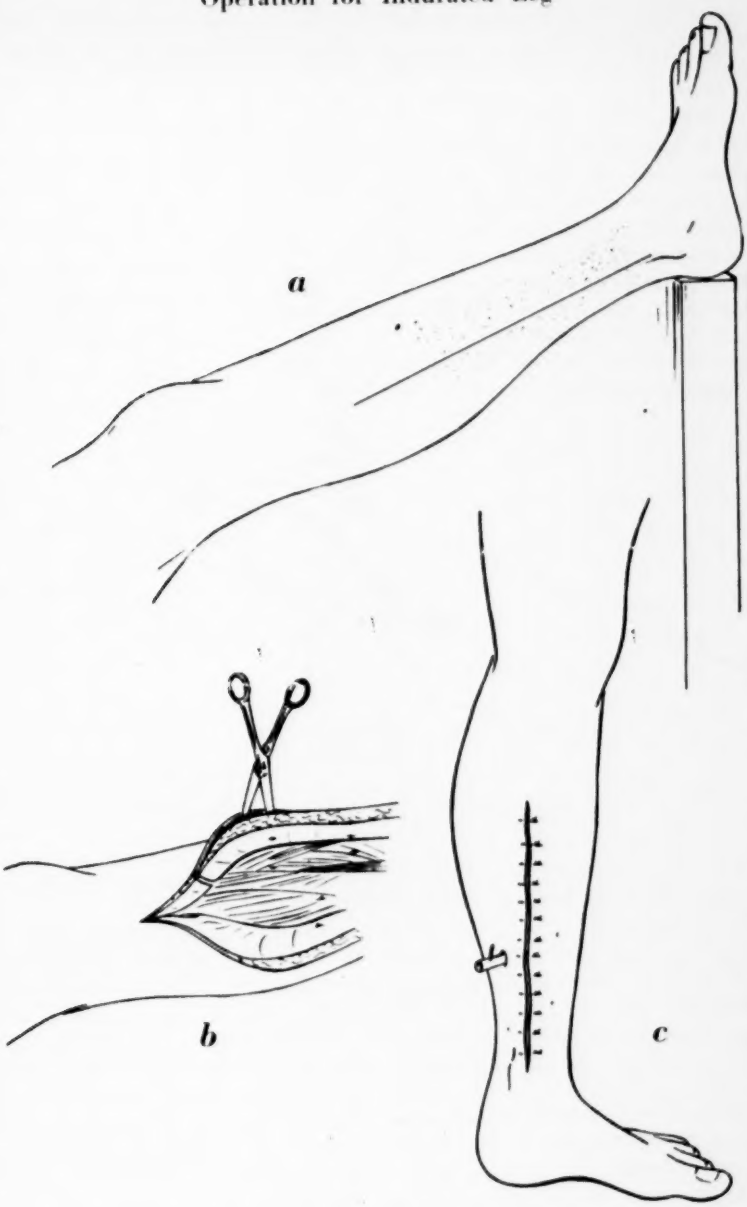


FIGURE 1

dressing. Pyocyaneus infection is thus avoided.

With exposed bone and indolent leg ulcer—When unscarred periosteum lies in the ulcer region, the graft is applied directly to the periosteum. Although part of the graft may die, an excellent covering is afforded the bone during the formation of granulation tissue and, later, the dead portion of the graft may be excised and a second graft applied, usually with success.

If bone is diseased, the periosteum is opened sufficiently to remove the cortex in layers until normal bone appears. Grafting is then done directly to the bone.

With varicose veins—The saphenous vein is ligated at the femoro-saphenous junction when varicose veins occur with chronic indurated cellulitis. After division, the vein is stripped to just below knee level, since the lower branches are resected as the indurated area in the lower leg is removed.

When deep and communicating veins are also incompetent, a concomitant ligation of the superficial femoral vein is done, if the venous pressure in the vein is not above 30 cm. in saline solution. If the pressure is above 30 cm., either the saphenous vein or the superficial femoral vein is ligated, but not both veins.

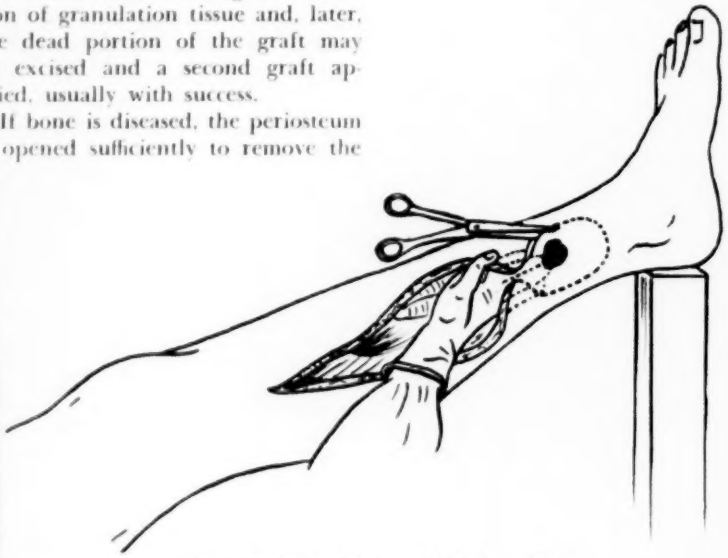


Fig. 2. Indurated leg and indolent ulcer

Postoperatively, edema and venous stasis may be prevented by elevating the foot of the bed about 6 in.

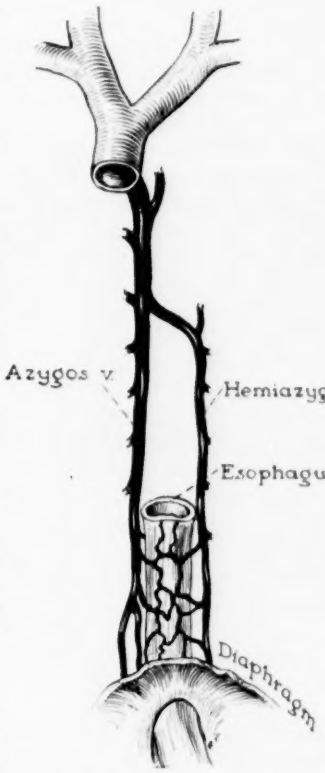
Anticoagulant therapy is begun four to six hours after surgery. When the patient starts walking, success depends on the prevention of leg edema, so a wide Ace bandage is worn until the circulation becomes competent.

Hemorrhage from Esophageal Varices

HOWARD K. GRAY, M.D., AND FRANK B. WHITESELL, JR., M.D.*
Mayo Clinic, Rochester, Minn.

ATTEMPTS to stop bleeding from esophageal varices have been generally unsatisfactory, but a combination of splenectomy, devascularization of the lower part of the esophagus and the cardia of the stomach, and bilateral vagotomy with gastroenterostomy may succeed.

The usual surgical methods include splenectomy to reduce the volume of blood entering the portal system, removal or injection of existing varices over the lower esophagus and cardia of the stomach, and various short-circuiting maneuvers to decompress the portal bed by shifting the circulatory burden to the inferior vena cava or a tributary.



Howard K. Gray, M.D., and Frank B. Whitesell, Jr., M.D., point out that emphasis has been unduly placed on the portal system in treating esophageal varices to the neglect of the azygos system (see illustration).

The portal pressure, spleen, and liver may appear normal, indicating that the primary origin of the varices may be abnormality of the azygos system. Passive congestion or stasis in the azygos veins, lack of valves, poor support afforded by the loose surrounding stroma, and certain inherent structural defects could produce varices despite normal pressure gradients in the portal system. The erosive action of regurgitated gastric acid chyme may precipitate hemorrhage.

In the recommended surgical therapy, devascularization denotes only the stripping of any large varicosed periesophageal veins and the ligation and excision of the arterial trunks ramifying outside the muscularis, the procedure being extended to include a significant portion of the veins over the cardia

* Hemorrhage from esophageal varices. Ann. Surg. 132:798-810, 1950.

of the stomach. Removal of the extramural vessels does not compromise the viability of the esophagus and abolishes channels which augment stasis and engorgement of dilated submucosal vessels.

Bilateral vagotomy abolishes the cephalic phase of gastric secretion and reduces gastric acidity and regurgitation of acid chyme into the lower part of the esophagus. Gastroenterostomy compensates for the decreased motility of the stomach following section of the vagi.

¶ **ODORS FROM COLOSTOMY** may be abolished by a mixture of chlorophyll and kaolin inserted in the bowel opening. Julien M. Goodman, M.D., of Ohio State University, Columbus, gave plain gelatin capsules, each containing chlorophyll and 360 mg. of colloidal kaolin, to 18 patients with permanent colostomies. Apparently a single capsule, placed within the colostomy immediately after the morning irrigation and evacuation effectively deodorizes for several hours. The chlorophyll-kaolin mixture produced no undesirable change in character of stool or in bowel habits or other untoward side effects. Patients were able to pursue usual activities without fear of embarrassment.

Surgery 28:550-551, 1950.

¶ **SURGICAL SCRUB** with hexachlorophene is most effective if preceded by a two-minute application of soap and brush. The hands should then be immersed for two minutes in a solution of 0.1% hexachlorophene and 0.5% cetyl alcohol in 70%, by volume, of isopropyl alcohol. The method was thoroughly tested by Irvin H. Blank, Ph.D., and associates of Harvard University and the Massachusetts General Hospital, Boston, under laboratory and actual operating conditions. Rapid degermation is not achieved without the preliminary soap scrub. After repeated scrubbing, the effect of hexachlorophene is accumulative. Cetyl alcohol is emollient.

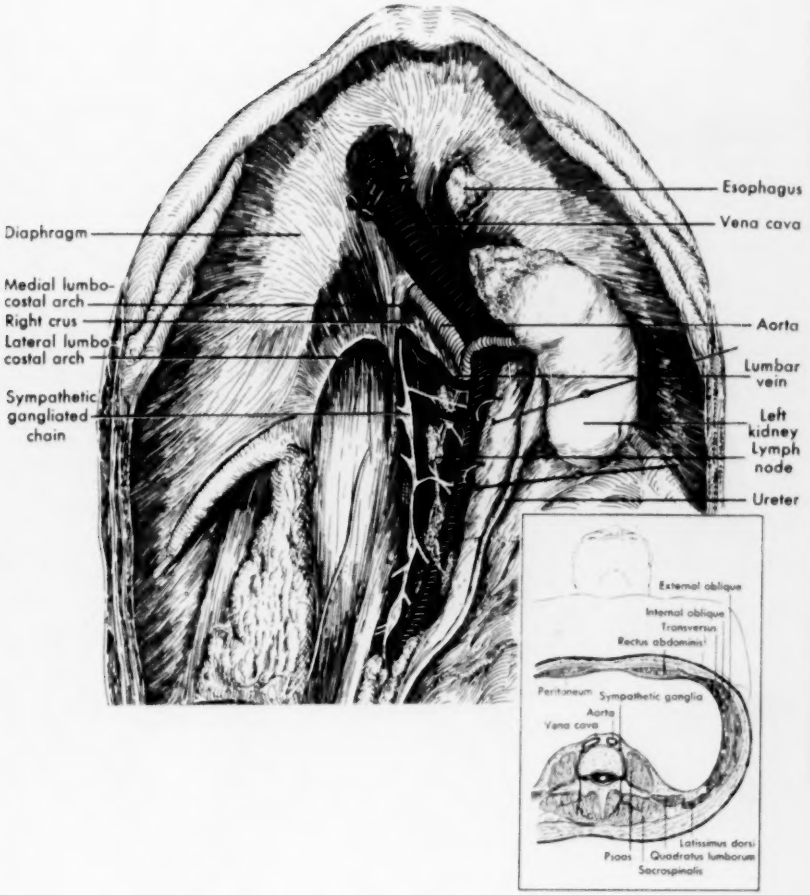
Surg., Gynec. & Obst. 91:577-584, 1950.

¶ **BILIARY INFECTION** may be treated more effectively by aureomycin than by any other antibiotic. Single intravenous injections of 250 mg. produce levels of 40 to 80 μg. per cubic centimeter in bile, about 6 to 8 times the usual concentrations in serum. Jerry Zaslow, M.D., Maj. Thomas H. Hewlett, M.C., and Ralph Goldsmith, M.D., of the Jewish Hospital, Philadelphia, warn that the drug is fully active only when bile drains freely. But even with obstruction or poor liver function, aureomycin may protect undamaged areas from an ascending process. Antibiotics are adjuncts to and not substitutes for established measures of therapy for biliary infection.

Gastroenterology 16:479-483, 1950.

Lumbar Sympathectomy

F. M. AL AKL, M.D.
Kings County Hospital, New York

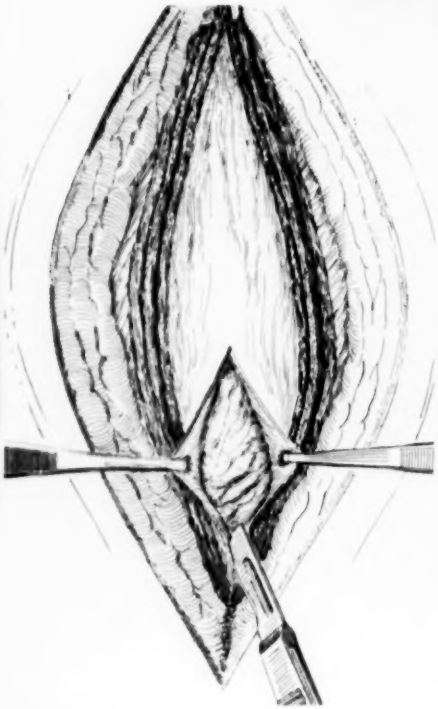


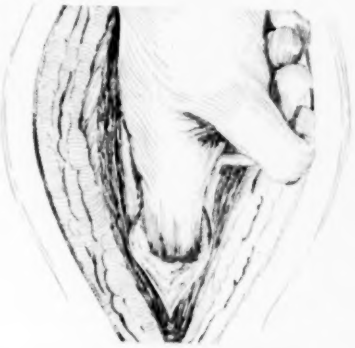
KEEP THIS PICTURE IN MIND

1. *(Above)* Tilt patient 30 degrees with a sandbag under buttocks and lower ribs. Break table.

2. *(Left)* Incise skin and subcutaneous fat transversely from rectus edge outward 10 cm. to midpoint of line denoting narrowest distance between costal margin and iliocrest. Continue into internal oblique and transversus muscles down to transversalis fascia. Clamp and coagulate bleeders. Incise transversalis fascia at lateral aspect of incision, exposing preperitoneal fat.

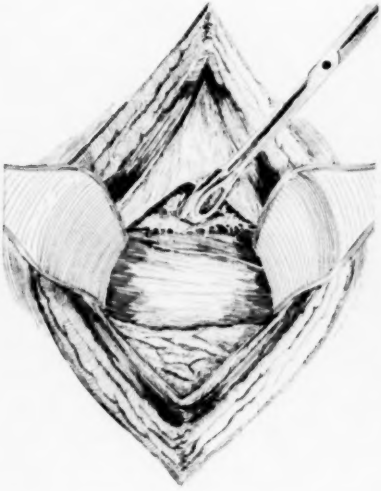
3. *(Below)* Introduce finger into aperture and displace peritoneum medially.



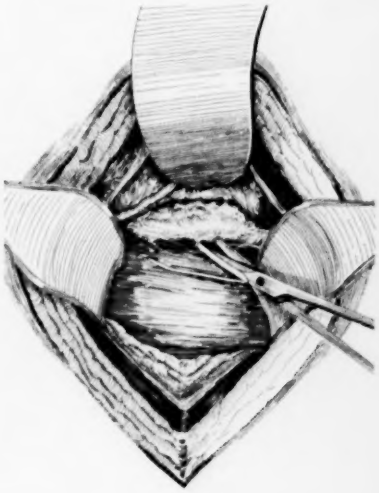


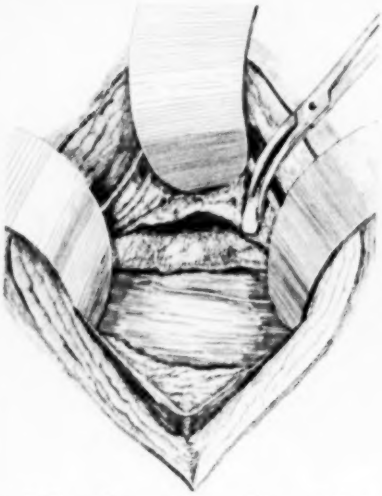
4. Open resultant fatty fossa with two retractors, and under direct vision, continue reflection of peritoneum medially toward psoas ridge.

5. *(Below)* With sponge stick reflect peritoneum toward midline and, watching peritoneal fold, roll off psoas muscle and adepoareolar pad between the muscle edge and vena cava or aorta, as the side may be.

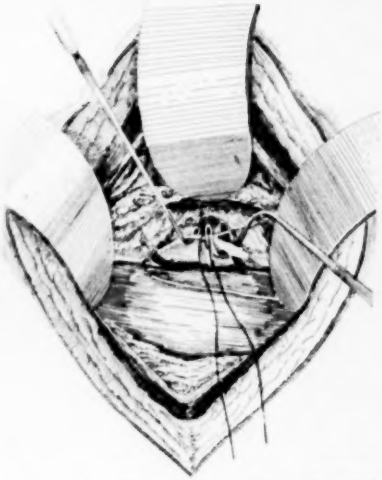


6. *(Below)* Separate transversalis fascia from peritoneum anteriorly. Place wet pad over and retract peritoneum medially. Hold peritoneum with wide Deaver retractor and spread and cut fibrous strands across psoas edge and midline.



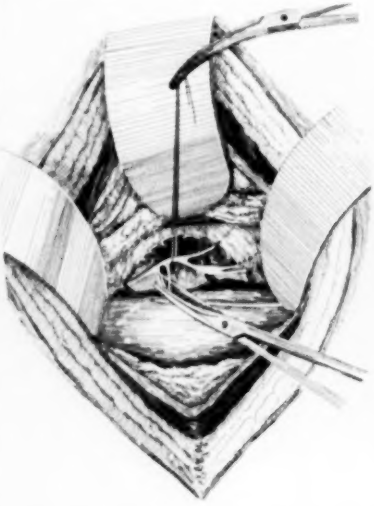


7. Reflect fat pad containing perivascular lymph nodes with overlying vena cava toward midline, exposing vertebral bodies and sympathetic chain.

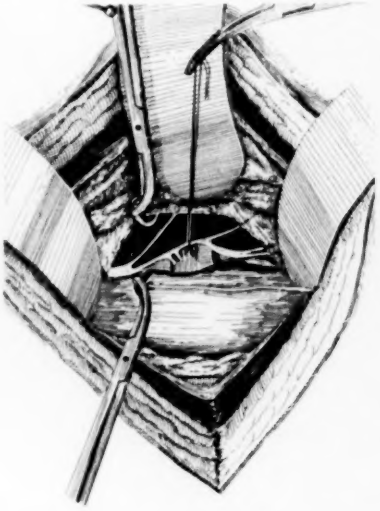


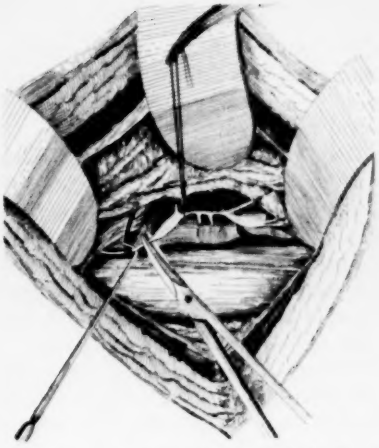
8. Reapply wet pad, readjust retractor to rest on vertebral bodies. Tease fascial covering with nerve hook; isolate sympathetic trunk for 1 or 2 cm.; pass ligature carrier beneath and use ligature for traction.

9. *(Below)* Lift chain, snip communicating branches. Do not mistake blood vessels for nerve filaments; if in doubt, cut between clamps.

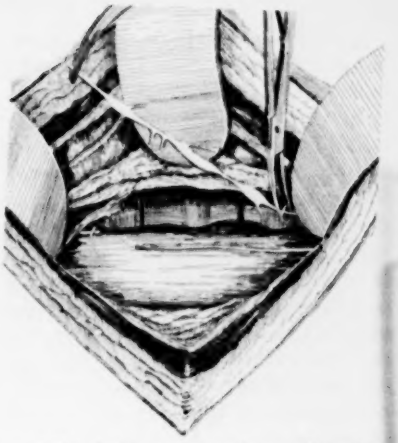


10. *(Below)* Doubly clamp any vessels crossing chain, cut between clamps, and electrocoagulate ends.

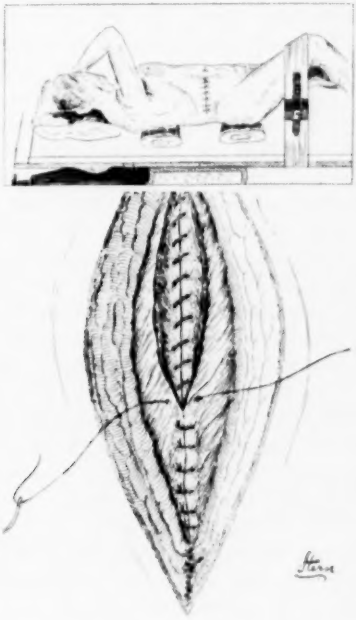




11. Retract and continue cephalad detaching chain and sectioning communicating branches until chain disappears between crus of diaphragm and medial lumbocostal arch. If any lumbar veins crossing the chain are encountered, cut chain and pull it over beneath vein.



12. Lift chain and continue dissection caudad until chain disappears over pelvic brim beneath iliac vessels. Apply silver clip to both extremities of chain for roentgen identification of level, then cut proximal to the clip and save specimen for histologic examination.



13. Inspect field for bleeding. Remove retractors, straighten table, suture the muscle layers, and close skin with vertical mattress sutures.

NOTES

Commonly, there are three ganglia on each side of the lumbar vertebrae, but, both in number and location, the lumbar sympathetic ganglia and communicating branches are among the most variable and asymmetric structures of the human anatomy. They may be fused into one long spindle on one side or divided into as many as eight beads on the opposite side. The nerve trunks connecting the ganglia also vary in size from one heavy cord to one or more flimsy filaments, and the communicating branches may be one or several.

For practical purposes, the chain is removed between the point of emergence near the diaphragmatic crura down to the point of disappearance beneath the common iliac vessels. This segment usually comprises the essential L_2 and L_3 ganglia. Dissecting behind the diaphragmatic crus for L_1 is unnecessary, and when bilaterally accomplished, may result in paralysis of the ejaculatory mechanism in the male. Search beneath the common iliac vessels for L_4 may produce venous oozing, and section of L_4, which contains postganglionic axones to the sciatic nerve, may greatly increase sensitization of the denervated arteriorlar walls to circulating adrenalin.

The lumbar sympathetic chain may lie exposed over the vertebral bodies or be obscured by fibrous bands. When invisible, the chain may be located by digital palpation over the vertebra at the vertebropsoas sulcus. In some cases the fibrous bands are a dense fascial structure which renders the chain impalpable. Only after this fibrous layer is teased with a hook can the chain be exposed and isolated.

On the right side, the vena cava may extend onto the psoas muscle and thus overlay the right sympathetic chain completely. The left chain is always more readily exposed when the fatty mass occupying the sulcus between the psoas muscle and the aorta is reflected medially.

Several muscle-splitting incisions are described, but when the table is broken, the overlapping layers of separated muscle fibers crowd one another instead of falling apart as when the muscles are sectioned transversely.

The transversalis fascia and peritoneum are often inseparably adherent anteriorly and separated laterally by preperitoneal fat. If inadvertently incised or opened during the separation, the peritoneum is promptly sutured. The peritoneum is always reflected toward the midline, otherwise the dissecting finger may stray into the lumbar gutter and reach a dead end at the fatty sulcus between the quadratus lumborum and psoas muscles at the side of the vertebral column.

The electrocoagulating current is convenient for sealing bleeding points deep in the wound and may reduce operating time.

The ureter with the spermatic or ovarian vessels is incorporated in, and retracted with, the parietal peritoneal leaf. These structures are easily demonstrable and should not be confused with the lumbar sympathetic chain.

Analgesia in First Stage of Labor

ARCHIE A. ABRAMS, M.D.*
Boston University

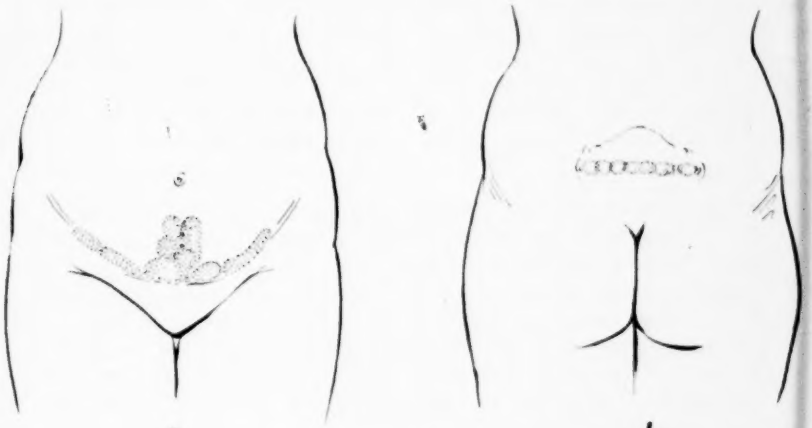
PAIN may be abolished during the greater part of labor by intradermal infiltration of hypogastric, suprapubic, inguinal, and sacroiliac areas.

Effectiveness is simultaneous with administration. The anesthesia does not change uterine tone or frequency, intensity, and duration of uterine contractions.

Sedation is unnecessary and the attendant depressing effects, particularly on the infant, are avoided. Babies delivered after intradermal infiltration anesthesia are pink in color and usually cry immediately.

Early labor pains are actually viscerosensory reflexes referred to the skin of the hypogastric area near the midline, the skin over the symphysis pubis and inguinal ligaments, and the skin over the sacrum and sacroiliac joints.

Irritation produced by uterine contractions and the stretching of surrounding tissues is transmitted by afferent fibers through the eleventh and twelfth thoracic roots to the spinal cord to create an irritable focus. Afferent impulses from the skin enter the abnormally irritable segment and give rise to painful



a *b*

Distribution of wheals on abdomen and back

* Obliteration of pain at the site of reference by intradermal infiltration anesthesia in first-stage labor. New England J. Med. 243:636-640, 1950.

sensations which are referred back to the peripheral structures supplied by the eleventh and twelfth thoracic nerves, chiefly the skin of the lower abdomen and of the sacral area of the back.

To interfere with the viscerosensory reflex thus established, Archie A. Abrams, M.D., uses intradermal infiltration of a 1.5% solution of Metycaine with epinephrine added in a dilution of 1:200,000.

Approximately 30 cc. of the solution is infiltrated into the skin of the abdomen, starting at the midline just above the symphysis pubis. Infiltration continues in a linear fashion, first to the left and then to the right above the inguinal ligaments, out to the anterosuperior iliac spines, and up the midline of the abdomen for a distance of 7.5 cm., extending laterally on each side for 2.5 cm. (Fig. *a*).

If the patient also has back pain, the skin over the upper sacrum and over the sacroiliac joints is infiltrated intracutaneously with an additional 30 cc. (Fig. *b*). The drug can be reinjected, if necessary, without untoward or systemic reaction, although the effects of one injection sometimes will last as long as six hours.

Over one-half the patients have complete relief of pain and more than one-third experience moderate relief, but all are conscious of contractions. The infiltration can be started as soon as the patient is in labor and has pain, regardless of stage of cervical dilatation, because the progress of labor is not stopped by the anesthesia.

¶ VAGINAL HYSTERECTOMY produces less fever if a penicillin suppository is placed in the vagina twelve to fourteen hours before surgery. Samuel J. Turner, M.D., of the Chicago Medical School employs 100,000 units of crystalline potassium penicillin G in cocoa butter, in addition to routine preparation. Only 7 of 100 patients so treated had postoperative temperature as high as 101.2° F. for two to four days. With routine prophylaxis and no suppositories, incidence of hyperpyrexia was 37% in 56 cases and 35% in a series of 210.

Am. J. Obst. & Gynec. 60:806-812, 1950.

¶ TRICHOMONAS VAGINITIS may be quickly corrected by Tetronyl, a surface-active mixture of two quaternary ammonium compounds in sodium carboxymethylcellulose. Organisms disappeared in one week in 73 of 100 cases observed at the Hospital of the University of Maryland, Baltimore, and in 21 of the others within four weeks. J. Mason Hundley, Jr., M.D., and associates apply the powdered form weekly by insufflation from a single-dose container through an open bivalve speculum. A jelly form is also used twice a day at home.

Am. J. Obst. & Gynec. 60:841-850, 1950.

Poliomyelitis after Tonsillectomy

GAYLORD W. ANDERSON, M.D., GENEVIEVE ANDERSON, M.P.H., AUDREY E. SKAAR, AND FRANZISKA SANDLER, M.S.*

University of Minnesota, Minneapolis

THE risk of contracting poliomyelitis is increased at least threefold if tonsillectomy is performed during an epidemic of the disease. The chances of bulbar infection are 11 times greater for children who have recently had their tonsils removed.

These conclusions were formulated from a study of the 1946 outbreak of poliomyelitis in Minnesota by Gaylord W. Anderson, M.D., Genevieve Anderson, M.P.H., Audrey E. Skaar, and Franziska Sandler, M.S.

Until the present study, data have been lacking to determine the occurrence of poliomyelitis of any type in recently tonsillectomized children as contrasted with others under otherwise identical circumstances who have not recently had tonsils removed. Rates based on all children infected with poliomyelitis regardless of age and irrespective of the period of the outbreak are meaningless, since the probable incidence of the disease varies greatly at different ages and stages of the epidemic cycle. The only truly valid comparisons are those based on groups of equal age and periods of exposure.

Detailed epidemiologic information was obtained concerning 2,709 persons who had poliomyelitis in Minnesota in 1946. Of these, 19 had had tonsils or adenoids removed during the previous month. Of the 19 patients, 12 or 63.2% had the bulbar type of involvement as contrasted with only 4 of the bulbar variety among 18 patients, 22.2%, who had tonsils removed in the second and third months preceding onset.

During the entire outbreak, only 20% of all patients and 11% of those under 12 had bulbar infections. Of the cases in which onset after operation was within the apparent

ATTACK RATES IN CHILDREN *Minnesota, June 15-July 31, 1946*	Tonsillectomized*	Nontonsillectomized†
Population 3 to 7 years old	2,686	240,779**
Cases of poliomyelitis	16	491
Attack ratio	1/168 (0.60%)	1/490 (0.20%)
Bulbar cases	12	96
Attack ratio	1/224 (0.45%)	1/2508 (0.04%)

*Tonsills removed during weeks ending 6/15/46 through 7/31/46; developed poliomyelitis during weeks ending 6/29/46 through 8/10/46.
†Developed poliomyelitis during weeks ending 6/29/46 through 8/10/46.
**Average of two estimates.

* The risk of poliomyelitis after tonsillectomy. Ann. Otol., Rhin. & Laryng. 59:602-613, 1950.

usual range of incubation period, seven to twenty days, 80% were bulbar.

A comparison of the attack rate among all children who had tonsillectomies during the preceding month with that of children of comparable age during the same period of time reveals that the risk of contracting recognizable poliomyelitis after a recent tonsillectomy is 3 times greater than otherwise. The bulbar attack rate of the tonsillectomized group is 11 times that of the group without operation.

The attack rates used for the children with recent tonsillectomies are conservative estimates. For instance, 1 case of poliomyelitis following tonsillectomy was omitted because the incubation period was too short to indicate causal relationship, and 2 fatal bulbar cases were omitted because full details were not obtainable.

Also, an additional 2 cases of tonsil removal in August and October were omitted because so few such operations were done in those months that conclusions could hardly be based on a single case in each month. Had all these cases been included, the rate in the tonsillectomized group would have been higher and the differences in the two groups even greater.

Fenestration Operation for Otosclerosis

EDWARD H. CAMPBELL, M.D.*

RESULTS of the fenestration procedure can be foretold to some extent by the patient's age and degree of hearing loss.

Edward H. Campbell, M.D., of the University of Pennsylvania, Philadelphia, finds that improvement is greatest with preoperative loss of 40 to 55 decibels and at ages of 26 to 45 years. For a successful outcome, the original impairment should be at least 35 decibels but not more than 65, so that a 30-decibel rise will restore serviceable hearing.

The average gain for the slightly deaf is 13 decibels and for the extremely deaf 20. If the deficit exceeds 60 decibels, fenestration will help very little. Occasionally, however, a patient with a loss of 40 or more units is completely rehabilitated.

By actual measurement, the group over 45 years of age improve more often than those under 26, although the average gain is about 16 decibels for both classes. Yet initial deafness is less profound in young people, so that useful hearing is regained more often.

With poor bone conduction at the 2,048 level, average postoperative rise is 21 decibels, and with good function 24.5 decibels.

* Evaluation of the operative indications and results in the fenestration operation for otosclerosis. Arch. Otolaryng. 52:515-532, 1950.

Diagnosis of Intracranial Aneurysms

ELDRIDGE CAMPBELL, M.D., AND C. W. BURKLUND, M.D.*
Albany Medical College, N.Y.

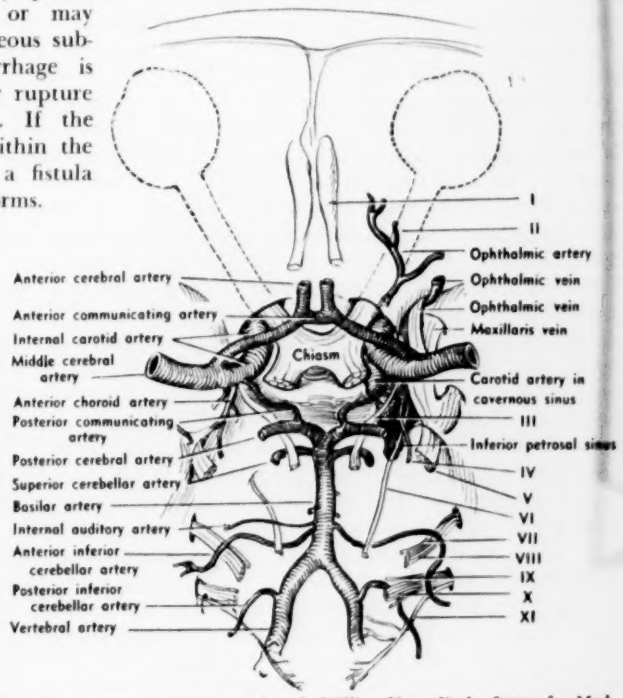
Most intracranial arterial aneurysms develop on or near the anterior half of the circle of Willis.

By reason of close anatomic relationship (see illustration), the extraocular and optic nerves are frequently affected. Therefore, the ophthalmologist is often first consulted.

An intracranial aneurysm may persist without any symptoms throughout life or may rupture. Spontaneous subarachnoid hemorrhage is usually caused by rupture of an aneurysm. If the rupture occurs within the cavernous sinus, a fistula to the carotid forms.

The intracranial vascular lesion may enlarge without rupture and produce visual symptoms by pressing on the different cranial nerves. The oculomotor, trochlear, and abducens nerves are often compressed by aneurysms of the internal carotid artery. Paresis of all the extraocular muscles on the involved side can develop. Pressure by the aneurysm on the ophthalmic division of the trigeminal nerve may cause pain behind or above the eye.

Oculomotor nerve paralysis characteristically produces ptosis and dilatation of the pupil with little or no pupillary response to light. In



* Ocular manifestations of aneurysms of the circle of Willis. New York State J. Med. 50:2427-2432, 1950.

addition, the patient will be unable to elevate, depress, or adduct the eye. If the abducens nerve is unaffected, the eye will be externally rotated at rest. Diplopia is noted, with the false image projected inward.

Paralysis of the sixth cranial nerve prevents abduction of the eye, and the consequent diplopic projection is outward.

Trochlear nerve injury alone produces only diplopia. The false image is projected down and inward. Optic nerve involvement may induce unilateral blindness. Homonymous hemianopsia results from an aneurysm pressing on the lateral aspect of the optic chiasm.

Aneurysms of the anterior cerebral artery or the anterior communicating vessel seldom cause extraocular muscle paralysis. However, various forms of hemianopsia, such as bitemporal hemianopsia, may develop from chiasmal compression. Spontaneous rupture is common with aneurysms of these vessels.

Posterior communicating artery aneurysm is rare. The oculomotor nerve is first affected. Ophthalmic nerve pain may also occur. Aneurysms of the posterior cerebral artery behave similarly.

Diagnosis of intracranial arterial aneurysm is best established by cerebral angiography. Treatment is surgical if the location of the aneurysm will allow excision or trapping by clipping the parent vessel.

Before surgery can be attempted, two matters must be carefully determined: the precise location of the aneurysm, and the presence of an adequate collateral circulation from the contralateral internal carotid artery.

At the time of angiography, compression of the opposite carotid artery in the neck will often reveal the extent of collateral routes by the appearance of Diodrast in the opposite carotid tree. The Matas test for collateral circulation is also employed by Eldridge Campbell, M.D., and C. W. Burklund, M.D. This test consists of digital compression of the carotid artery in the neck for ten to twenty minutes. If signs or symptoms of a unilateral cerebral ischemia appear during compression, collateral circulation is inadequate or absent. The Matas test, however, fails to differentiate between an anterior and posterior communicating collateral circulation.

Depending upon the position of the aneurysm and the state of collateral blood flow, the aneurysm may be excised or clipped. Aneurysms of the carotid artery within the cavernous sinus may be treated by clipping the artery beyond the sinus and ligation of the internal carotid in the neck.

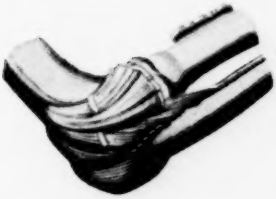
An aneurysm of the intracranial internal carotid between the cavernous sinus and the posterior communicating artery may also be trapped. At present, surgical treatment of an aneurysm at the bifurcation of the carotid artery is too dangerous.

Aneurysms of the anterior cerebral artery proximal to the anterior communicating branch are usually amenable to operation. If the posterior cerebral artery is the site of an aneurysm, the occipital lobe must be removed with the aneurysm.

Recovery of ocular motor func-

In the dictionary

"Joint" sometimes means...



"Joint" sometimes means...

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sometimes means

placental blood

(human) – CUTTER

always means

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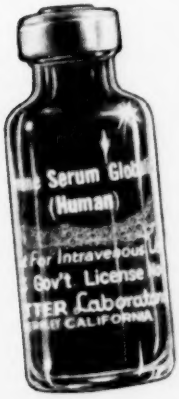

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tion after excision or trapping of an aneurysm is variable. The trochlear and abducens nerve paresis frequently disappears. Oculomotor nerve damage is less often reversible. Some deficit often persists; misdirection of fibers may also occur. The patient frequently cannot perform third nerve functions, except adduction, with the involved eye.

Eczema from Wooden-handled Objects

J. B. HOWELL, M.D., AND D. SHELTON BLAIR, M.D.*

RECURRENT eczema of the hands and fingers is occasionally caused by allergic reaction from using or making wooden objects. The only two woods known to produce this vesicular eczema are cocobolo and rosewood, both of which are used for cutlery handles and other utility articles.

Some of the common objects made of these woods are the handles of kitchen utensils, brushes, umbrellas, and small tools, steering wheels, policemen's clubs, canes, billiard cues, rosary beads, buttons, and knobs.

The irritating principle is apparently contained in an oil from the wood. The oil is soluble in alkali but is precipitated by acid. Persons whose perspiration has an alkaline reaction are susceptible, since alkali dissolves the irritating agent and permits entrance into the pores of the skin.

The appearance of cocobolo wood dermatitis of the hands is a protean eczematous eruption, and only by considering all the etiologic possibilities of hand eruptions can the problem be solved. Patch testing of a sensitized person with cocobolo wood shavings may provoke a severe local reaction at the test site and exacerbation or activation of original areas of involvement. Therefore, an ether extract and corn oil dilution of the oleoresin is best for contact testing. Shavings from suspected objects in use for some time seem safe to use in the test because some of the oil has been lost.

J. B. Howell, M.D., and D. Shelton Blair, M.D., of Dallas have recently observed 3 housewives with severe recurrent vesicular eczema of the hands. Results of patch tests for the common causative agents were negative, and the condition resisted all treatment. In every case, patch tests with cocobolo wood shavings gave positive reactions and, after the offending articles were removed from the household, the eczema cleared and did not recur.

* Eczema of the hands from wooden-handled objects. Arch. Dermat. & Syph. 62:400-404, 1950.

Intracapsular Hip Fractures

ROBERT T. MC ELVENNY, M.D.*
Northwestern University, Chicago

INITIAL loss of blood supply to a bone fragment at time of injury neither prevents nor produces fibrous or delayed union.

Primary avascular necrosis is caused by direct damage to the medullary components of the bone from disease, foreign material, heat, abnormal external or internal pressures or by continued interference with the requirements of bone growth or healing.

Robert T. McElvenny, M.D., believes that conditions such as traumatic dislocation of the hip or injury of the medullary structures of the femoral head compromise the vascular supply. The consequent damage is greater than that caused by disturbance of the extrinsic circulation. The initiating factor may be the crushing or pounding force of the accident, surgical trauma, or the effects of therapy. Delayed union of a fracture is the most common cause of avascular necrosis.

When roentgenograms disclose delayed union, healing may be stimulated by bone graft pegging or osteotomy before avascular necrosis occurs. Continued disunion of a talar head fragment, carpal scaphoid fragment, or capital epiphysis leads ultimately to avascular necrosis, with bone disintegration and poor function.

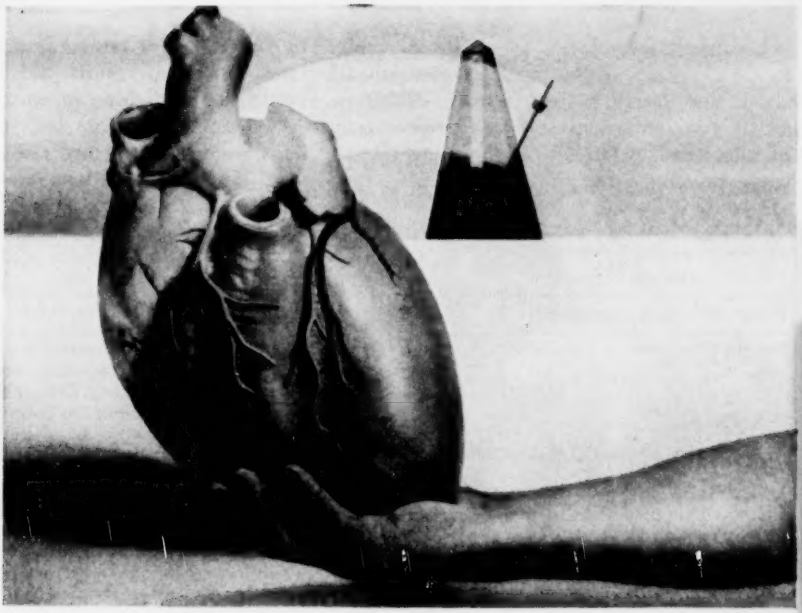
A good bony union of slipped upper femoral epiphysis is induced by fixation with bone pegs more quickly than with metal. When the head is badly displaced, osteotomy is required to restore good position.

In both delayed union and primary avascular necrosis, the first changes noted on roentgenograms are in the femoral head on the acetabular side of the former epiphyseal plate. Evidence of bone production and proliferation appears on the upper proximal portion of the neck when the head substance has diminished sufficiently to permit injury of the neck by the acetabular components.

To diagnose primary avascular necrosis, immediate bony union between the femoral head and neck must be demonstrable and no fracture line visible.

With delayed union, no bony continuity exists between the fragments. Repeated small fractures caused by slight motion of the head and neck produce intermittent attempts at callus repair and continued proliferation of the callus mass, easily detectable on serial roentgenograms (see table). Plates are made every four weeks for the first six months, every six weeks for the next three months, then every three months for two years.

* An interpretation of certain factors affecting treatment of intracapsular hip fractures. Quart. Bull. Northwestern Univ. M. School 24:267-279, 1950.



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Changes secondary to delayed union include slight condensation about the fracture line, fibrosis of medullary components, cystic changes in the head, sclerosis of the head with calcium precipitation in the structural space, and, possibly, disintegration of the head. After a period of months, some cases of delayed union may achieve bony union but, by this time, the head has become necrotic.

Varus and valgus positions are in no way concerned with bony union; the choice of position is governed solely by functional or cosmetic considerations. For ideal results, reduction should be with the proximal fragment in valgus position, but for rapid bony union, satisfactory reduction is the main concern. Inadequately reduced varus hips result in more cases of nonunion than of delayed union. Inadequately reduced valgus hips, except subcapital fractures, give more delayed unions than nonunions because of the favorable thrusts at the fracture site in that position.

Although the degree of angle has

ROENTGENOGRAPHIC DIAGNOSTIC TABLE

Primary Avascular Necrosis	*Delayed Union*
Head and neck are intact.	Head and neck not united by bone.
No proliferation is seen about fracture site.	Proliferation of callus at fracture site—usually most marked on superior portion of neck just at fracture site. This is usually first visible eight to twenty weeks postpinning. It may be evident following a few weeks of full weight bearing.
Increased density of head is not marked.	Increased density of head eventually marked.
Loss of bony substance occurs on head side of old epiphyseal plate line.	Small circular areas of cystic change throughout head eventually appear.
First loss of bony substance of head is usually seen at upper outer quadrant, centrally if full effect of trauma is delivered there (central dislocation).	Loss of bone substance as gouged-out area in upper outer quadrant of head is not common and, if it appears, is a late sequela.
Head does not shift or flow over and under inferior medial portion of neck because bony union exists at fracture site.	Head tends early to shift slightly and later flow over and under inferior medial portion of neck. This is not a refracture. The head and neck have never united by bony union.
Bony union at fracture site is established or continuity between head and neck has never been lost.	Union between head and neck may eventually occur. Head tends to flatten. Changes in head may be obvious at this time; if not, will begin to appear within two years of fracture treatment.

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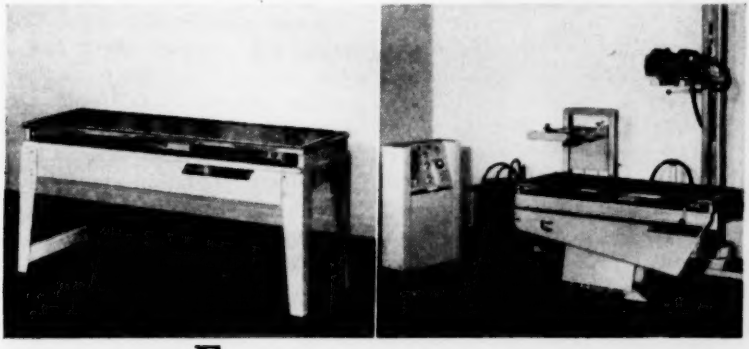

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no prognostic value in predicting union, the more oblique the angle, the greater the amount of traction needed and the more difficult to get adequate reduction.

Locked fragments at time of reduction usually produce immediate bony union, while unlocked pieces fail to heal. When reduced, the fragments automatically lock if placed so that the cortex of the femoral head is above and inside that of the neck fragment. Shearing and angulating forces are so converted as to increase the impacting and locking tendencies. This position—the third position—can be defined on roentgenograms in the anteroposterior view with the limb in complete internal rotation, neutral lateral position, and with traction maintained. Traction is applied only to impacted fractures showing inadequate reduction.

The following two types of femoral neck fractures are difficult to reduce and usually result in nonunion or delayed union:

1] A true subcapital fracture with no neck on the head fragment. Extreme difficulty is encountered in attempting to force the femoral neck under and inside the most medial portion of the head to ensure firm locking. Unless this position is attained and maintained after fixation, some form of open reduction is indicated as the initial treatment of choice. Osteotomy may be done or an attempt be made to shape the superior portion of the neck so as to leave superiorly a wide, broad surface for the head to rest on. The procedure is followed by fixation.

2] A fracture in which an abnormally long medial fragment remains on the head. An excellent result may be obtained if the beak fragment is placed lateral to the inner portion of the neck fragment, gouging into the cancellous bone of the neck and wedging firmly lateral to the medial V-shaped cortical defect of the femoral neck. If adequate reduction cannot be maintained, an immediate osteotomy should be done or open operation performed in which the beak is fashioned to invaginate deeply into the cancellous substance of the neck fragment.

¶ PHENYLACETYLUREA. Phenurone, is of value in the control of psychomotor epilepsy. Of 24 patients with psychomotor attacks, 18 were improved by Phenurone, report Samuel C. Little, M.D., and R. R. McBryde of the Medical College of Alabama, Birmingham. The daily dose is 2 gm. or less. Slight improvement in grand mal seizures occurs. Little benefit is noted for patients with petit mal attacks. Maximum improvement in seizures is reached during the first two months of therapy. Leukopenia occasionally develops and repeated white blood cell counts must be made during treatment. Toxic symptoms, involving chiefly the central nervous system or digestive tract, require discontinuance of the drug in about one-sixth of cases.

Am. J. M. Sc. 219:494-499, 1950.

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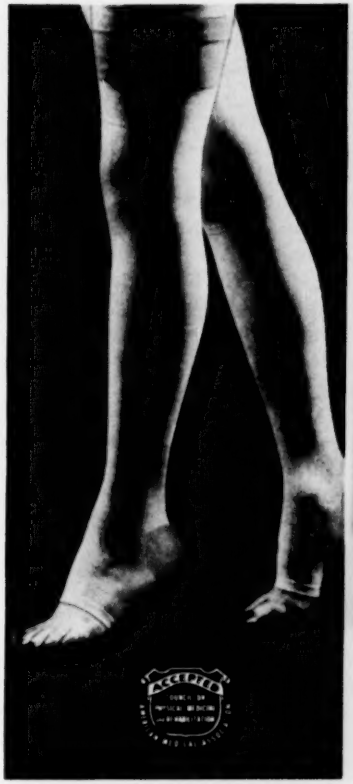

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Neuropathy in Infectious Mononucleosis

THEODORE C. BERNSTEIN, M.D., AND HAROLD G. WOLFF, M.D.*
Veterans Administration Hospital, Bronx Cornell University, New York City

THE central nervous system may be affected in infectious mononucleosis. Though the complication is relatively infrequent, some idiopathic acute disorders of the nervous system may be associated with infectious mononucleosis.

The symptoms depend on the site of greatest involvement. Manifestations may appear as serous meningitis, encephalitis, meningoencephalitis, polyneuronitis, or peripheral neuropathy.

The nervous system is implicated in less than 1% of cases of infectious mononucleosis and, as is the case with mumps, neurologic complications are considerably more frequent in males than in females, reports Theodore C. Bernstein, M.D., and Harold G. Wolff, M.D., who review the literature and describe a recent additional case of meningoencephalitis.

Diagnosis of infectious mononucleosis is made on the basis of a heterophil antibody titer above 1:64, the appearance of monocytic blood cells, and cervical or generalized lymphadenopathy.

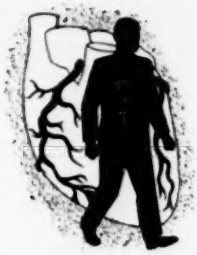
The common signs and symptoms of nervous system involvement are headache, disturbances of consciousness, nuchal rigidity, convulsions, ataxia, hemiparesis, cranial nerve palsies, papilledema, and motor and sensory disturbances. First indications usually appear from one to three weeks after onset of the disease, but may be the initial indication of the infection.

The neurologic manifestations are similar to those observed in diseases caused by other acute infectious agents. Therefore, physicians should consider the possibility of infectious mononucleosis in the differential diagnosis of lymphocytic meningitis, encephalitis, and acute polyneuronitis, and heterophil antibodies should be sought in all acute disturbances of the nervous system.

At the present time, infectious mononucleosis is believed to be of virus origin, although this concept is not confirmed. Death occurs infrequently with the disease, and postmortem examinations are seldom done. In the few autopsies that have been performed, alterations in the nervous system were observed. These included meningeal infiltration with mononuclear cells, perivascular hemorrhages, perivascular cuffings of mononuclear cells, alterations of neurons in the brain and spinal cord, and congestion, edema, and cellular infiltration of peripheral nerves and roots.

Spinal fluid changes consist of increase in lymphocytes or protein or both. Abnormalities in the spinal

* Involvement of the nervous system in infectious mononucleosis. Ann. Int. Med. 33:1120-1138, 1950.



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fluid may exist without any evidence of nervous system disturbance.

Although infectious mononucleosis is predominantly a disease of children, the nervous system involvement is more common in patients 20 to 30 years old than in younger persons.

Recovery from neurologic abnormalities is complete for 85% of patients. Despite complete symptomatic recovery, spinal fluid changes persist for long periods in many cases. Muscular weakness, wasting, and slight motor aphasia have been reported as permanent sequelae.

Serum Cholesterol and Age

ANCEL KEYS, PH.D., AND ASSOCIATES*

With healthy men, the total serum cholesterol concentration rises yearly until about the age of 55 and thereafter usually decreases.

At all ages above 35 years, values for 1% of males with no discoverable illness exceed 300 mg. per 100 cc.

Serum cholesterol levels were measured at the University of Minnesota, Minneapolis, by Ancel Keys, Ph.D., Olaf Mickelsen, Erma v. O. Miller, E. Russell Hayes, M.D., and Ramona L. Todd, M.D., in two independent research projects.

About 5,000 tests were done of 1,492 men from 17 to 78 years old and of 564 women from 17 to 30 by the Bloor extract Liebermann-Burchard method or the Schoenheimer-Sperry method.

Most subjects were in an upper economic group engaged in business, professional, and scholastic pursuits. Diets were varied and rather luxurious. The influence of basal or total energy metabolism, relative obesity, and food was not considered, however.

Between 17 and 30 years, cholesterol levels of men and women are about the same and increase 2.2 mg. yearly. The average at 22 years is 178.7 for males and 177.8 for females. Men add about 2.3 mg. annually from 17 through 45.

The high male value at 55 years is approximately 255.7 mg., and the mean fall from 60 to 68 is 2.9 mg. yearly. Between ages of 45 and 70 years, 1% of men have levels over 320 mg., and from 45 to 60 years, 5% are over 300 mg.

Although the persons investigated appeared well by careful physical examination, the data represent average, not necessarily the most desirable rates. The steady decline after middle life may indicate demise of those with high values rather than actual decrease. Figures correspond with normal values recently observed in Denmark.

* The concentration of cholesterol in the blood serum of normal man and its relation to age, J. Clin. Investigation 29:1547-1553, 1950.

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¶ SPONGE IN THE ABDOMEN may be recognized in roentgenograms by a small localized collection of air bubbles trapped in the mesh. The pattern is more uniform than that of intestinal gas and is not changed by shift of position or from day to day. A fatal case was diagnosed by M. Slater, M.D., of New York City after development of adhesions, pyloric obstruction, and subphrenic abscess. However, a similar roentgen appearance led to early identification in another instance, in time to save the patient's life.

Am. J. Roentgenol. 64:781-784, 1950.

Localization of Intrathoracic Lesions

BENJAMIN FELSON, M.D., AND HENRY FELSON, M.D.*

DISTORTION of the usual cardiac silhouette of the posteroanterior roentgenogram is a reliable indication of the location of intrathoracic lesions that are in anatomic contact with the heart or aorta.

Benjamin Felson, M.D., and Henry Felson, M.D., of the University of Cincinnati have determined the accuracy of this new sign in more than 84 cases. Diseases included acute or chronic pneumonia, tuberculosis, atelectasis, encapsulated pleural effusion, and tumor.

The following rules were formulated:

► A shadow concealing all or part of the heart border is anterior and, therefore, involves the middle lobe, lingula, anterior mediastinum, lower end of the major interlobar fissure, or anterior part of the pleural cavity.

► Density that overlaps but does not hide the heart outline is posterior and thus lies in a lower lobe, the posterior mediastinum, or the posterior part of the pleural cavity.

► Opacity obliterating the right edge of the ascending aorta is in the anterior segment of the right upper lobe, middle lobe, right anterior mediastinum, or anterior portion of the right pleural cavity.

► Density which overlies but does not obscure the right border of the ascending aorta is in the upper segment of the right lower lobe, posterior segment of the right upper lobe, posterior mediastinum, or rear of the pleural cavity.

► Elimination of the left border of the aortic knob indicates involvement of the apical posterior segment of the left upper lobe or adjacent mediastinum.

► A transparent defect over the aortic knob is either forward in the left upper lobe, high in the left lower lobe, or to the front or rear of the upper mediastinum or pleural cavity.

* Localization of intrathoracic lesions by means of the postero-anterior roentgenogram. The silhouette sign. Radiology 55:365-374, 1950.

Polyps of the Colon

ROBERT TURELL, M.D., AND ROBERT S. WILKINSON, M.D.*
Beth Israel and Harlem hospitals, New York City

All adenomas of the bowel are potentially malignant and so should be removed in toto. Sigmoidoscopic and roentgenographic studies should be made periodically thereafter to detect new or recurrent lesions at the earliest possible moment.

Colonic adenoma appears in 1 of 5 people who reach the age of 60 and in approximately 2% of asymptomatic individuals under the age of 45. Robert Turell, M.D., and Robert S. Wilkinson, M.D., found adenomas in over 7% of 386 patients over 50 years of age who had intestinal symptoms. Of 31 lesions, 5 were malignant and cancer developed after three years in 2 patients who refused treatment.

Polyps of the large bowel occur most frequently in the sigmoid, next often in the ascending colon or rectum, and least often in the cecum and transverse and descending colon.

The first indication of colonic polyps is usually bleeding; next most frequent is protrusion of the polyp through the anus. Sigmoidal adenomas occasionally cause lower abdominal pain.

A comprehensive diagnostic survey includes a bidigital rectal examination, sigmoidoscopy for 25 cm. or farther, biopsy, and barium and air double-contrast roentgenography. Since malignant transformation may occur anywhere in the polyp, an adequate biopsy to detect infiltration or invasion should afford specimens of tissue from the center, the periphery, and the surrounding mucosa, including basal submucosal structures.

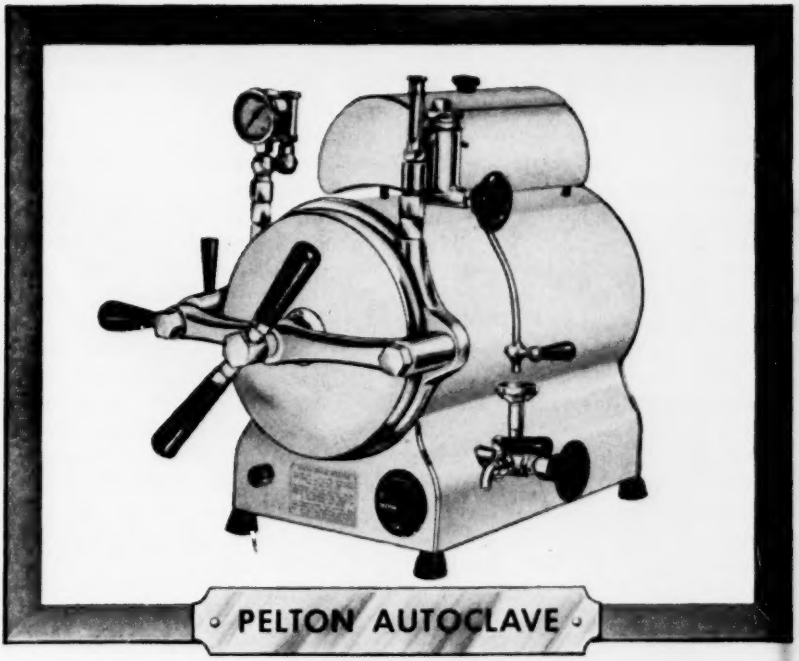
A solitary rectal polyp is frequently accompanied by adenomas elsewhere, for which search should always be made.

Pedunculated and sessile benign adenomas and growths with long and narrow pedicles containing noninvasive malignant foci may be removed by surgical diathermy or local surgical excision with a cold or electric scalpel. Except for large polyps or lesions above the peritoneal reflection, most extirpations may be accomplished in the office.

Mucosal excrescences and small sessile or pedunculated adenomas are removed by cold angulated biopsy forceps followed by thorough desiccation of the mucosal base. Even when noninvasive malignant cells are found in the body of the growth, large pedunculated polyps and some medium-sized sessile lesions, especially if located on the posterior aspect of the rectum, may be amputated at the mucosal base by high-frequency snare.

The electric double-loop resector is used to remove large sessile adenomas, especially those below the

* Adenomas of the colon and rectum. Surgery 28:651-661, 1950.



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peritoneal reflection, and tumors in inaccessible areas. Invasive polyps are true carcinomas and require radical resection.

Lesions above the reach of the sigmoidoscope are extirpated by transabdominal colotomy when the stalk or pedicle is narrow and long. If the polyp cannot be felt during surgery, transillumination of the gut in a darkened room with a specially constructed, sterile, cold light may be helpful. This failing, the colon may be incised on the antimesenteric side and examined with a sigmoidoscope.

Colotomy through which wide resection of the mucosal base and the submucosal structures may be done is used for the removal of short-pedicled adenomas and small or medium sized sessile lesions without palpable regional lymph nodes. For large sessile polyps, segmental resection is usually required, including end to end anastomosis with or without colostomy or cecostomy.

Papillary adenomas are rare, occur usually in elderly patients and in the rectum or rectosigmoid, and feel extremely soft and spongy by digital examination. These lesions recur after treatment and are more often malignant than other colonic polyps. Treatment consists of removal in toto by local excision or electrothermy.

With familial polyposis, malignant changes are nearly always found during the early decades of life. Therapeutic procedure consists of primary fulguration of the adenomas of the lower rectum, anastomosis of the ileum to the lower portion of the rectum, 8 cm. from the anus, for easy subsequent endoscopy, and colectomy in two stages. Total colectomy and proctectomy are indicated for complicating cancer of the rectum or when the adenomas are so numerous as to preclude successful removal proctoscopically.

Isolated adenomas associated with ulcerative or amebic colitis are managed as though unrelated to the inflammatory process, but multiple adenomas complicating chronic ulcerative colitis are best treated by total colectomy because of possible malignant degeneration.

¶ PERTUSSIS IN INFANCY may seriously damage the brain. Babies admitted to the Children's Hospital, Boston, for whooping cough at ages between three weeks and two years were examined years later by Randolph K. Byers, M.D., of Harvard University, and Nicholas D. Rizzo, M.D., of Peter Bent Brigham Hospital, Boston. Permanent effects were obvious in 6 of 35 cases not known to have had cerebral defects prior to the pertussis. Findings included feeble-mindedness in 2, mental irregularities implying diffuse cortical injury in 3, and emotional immaturity in 1. In 3 additional cases, transient retardation occurred. Since pertussis vaccine seems prophylactically efficacious, the risks of its use in infancy are probably outweighed by those of the disease.

New England J. Med. 242:887-891, 1950.

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Bone Marrow of Infants and Children

KURT GLASER, M.D.
Hadassah Medical Organization, Jerusalem
LOUIS R. LIMARZI, M.D., AND HENRY G. PONCHER, M.D.*
University of Illinois, Chicago

CELLULAR composition of infants' bone marrow fluctuates widely during the first year of life, particularly in the first month.

Throughout the rest of childhood and adolescence, cell counts are approximately the same as for adults.

Single tests are unreliable, however, because several aspirations from the same person or even different areas on the same slide may vary greatly. A deviation calls for repeated counts and further investigation.

Much more important than a figure for any type of cell are the relative proportions of various elements and the total morphologic pattern.

Values were established for healthy subjects by Kurt Glaser, M.D., Louis R. Limarzi, M.D., and Henry G. Poncher, M.D. Sternal punctures were done of 42 babies less than a month old, 17 between 1 and 12 months, and 92 children and young people from 2 to 19 years inclusive.

The sternum is pierced in or near the midline of the second or third interspace with a 16-gauge needle. A 1-cc. specimen of marrow fluid is withdrawn, less from small babies, and thoroughly mixed with a little powdered heparin. Centrifugation for five minutes at 2,000 rpm separates the sample into layers.

The myeloid-erythroid stratum is narrow and varies in width during the first year, then becomes more abundant and stable. Fat is seen in traces or not at all below the age of 1 year but is generally measurable thereafter. The layer of mature erythrocytes tends to decrease with advancing age.

Fat and most of the plasma are removed, and marrow smears are prepared with Wright stain. Either 400 or 500 nucleated cells are then counted.

Some errors and misinterpretations are unavoidable with the most careful technic. Any method of aspiration involves dilution by peripheral blood, especially if the bone cavity is very small and the needle point near blood sinuses. Cell counts also differ because of uneven distribution and relatively small numbers.

Erythroid forms are relatively frequent during the first two days of life, diminish until the fifteenth day, and increase to an average of 23.12% by the end of the first month. The level then remains stable except for a temporary fall during the third to fifth months.

The myeloid series also varies con-

* Cellular composition of the bone marrow in normal infants and children. Pediatrics 6:789-824, 1950.

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stantly during the first month. For the first two days, proportions are near the one- to twenty-year average of 60.59%. Values subsequently rise for about two weeks, abruptly decrease around the twentieth day, and shortly return to standard level.

The myeloid-erythroid ratio is low approximately two days but reaches 11.18 by the end of the second week. During the year, the value slowly descends to 2.95.

Individual erythroid and myeloid types, especially large subgroups such as polychromatic normoblasts and metamyelocytes, follow the trends of their own series.

Lymphocytes are few for a week and increase to 40% around the twentieth day. Throughout the first and second year the level declines, corresponding to the decrease in peripheral blood, to a stable average of 16.03% at the age of 2 or 3 years.

The relatively scanty numbers of basophilic granulocytes, plasma cells, megakaryocytes, monocytes, and histiocytes do not alter with age.

Penicillin Aerosol Inhalation for Babies

P. KARLBERG, M.D., G. STERNER, M.D.,
AND G. WALLMARK, M.D.*

For penicillin inhalation by infants and small children, a small plexiglass dome, edged with plastic tissue, is very convenient.

Treatment is especially useful for acute respiratory infection of patients too young for a mask and for chronic illness requiring prolonged medication, such as bronchitis or nephritis.

P. Karlberg, M.D., G. Sterner, M.D., and G. Wallmark, M.D., treated 30 children aged one month to two and a half years at the Norrtull Hospital, Stockholm. A ten-minute inhalation provided the same blood level as an equal amount injected intramuscularly.

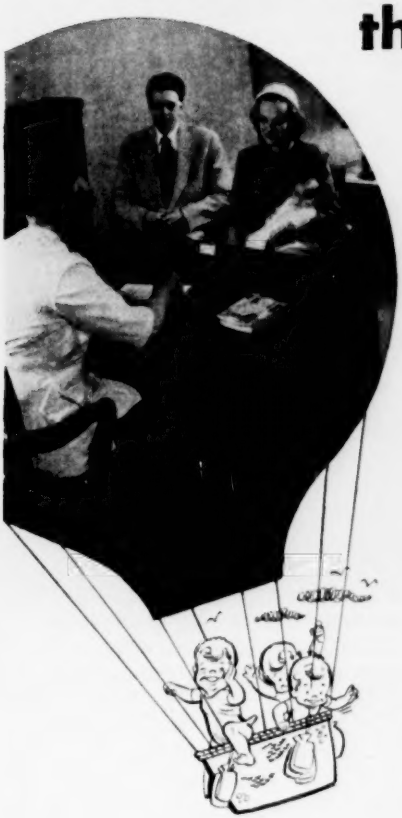
The dome, which covers the baby's head, is supplied in two sizes, holding either 6.5 or 10.5 liters. The soft plastic tissue is draped around the child's neck and upper chest, and aerosol is blown in from the back rather than over the face. Even struggling patients soon grow calm.

Crystalline sodium penicillin G in 2 cc. of physiologic saline solution is vaporized by Barach's spraying device driven by oxygen from a cylinder. Children up to 20 kg. in weight are given 50,000 units at a time and heavier patients as much as 100,000 units. From three to six inhalations are administered daily.

In severe disease, aerosol is supplemented with intramuscular or oral penicillin or sulfonamides.

* Aerosol-penicillin therapy for infants and children. Ann. paediat. 175:263-273, 1950.

When You Consider the High Cost of Babies . . .



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¶ EXTRARENAL AZOTEMIA and postrenal or obstructive uropathy can usually be differentiated from primary renal azotemia by the disproportionately low blood creatinine, compared with the elevated nonprotein nitrogen range. Although creatinine may be relatively high in all three conditions, no consistent relationship with nonprotein nitrogen can be traced. The two values were studied in 44 cases of urinary disease by Peter Gaberman, M.D., and associates at Cook County and Mount Sinai hospitals, Chicago. *J.A.M.A. 144:1246-1249, 1950.*

Management of Postoperative Urinary Retention

VERNON S. DICK, M.D.*

INABILITY to urinate after operation may be caused by acute bladder decompensation from rapid fluid intake, general sensory depression, prostatic or urethral obstruction, or combinations of these and related factors.

The postoperative bladder should not be allowed to become overdistended. If other means fail, catheterization should ordinarily be performed before distention has exceeded 450 cc.; a palpable bladder usually indicates 350 cc.

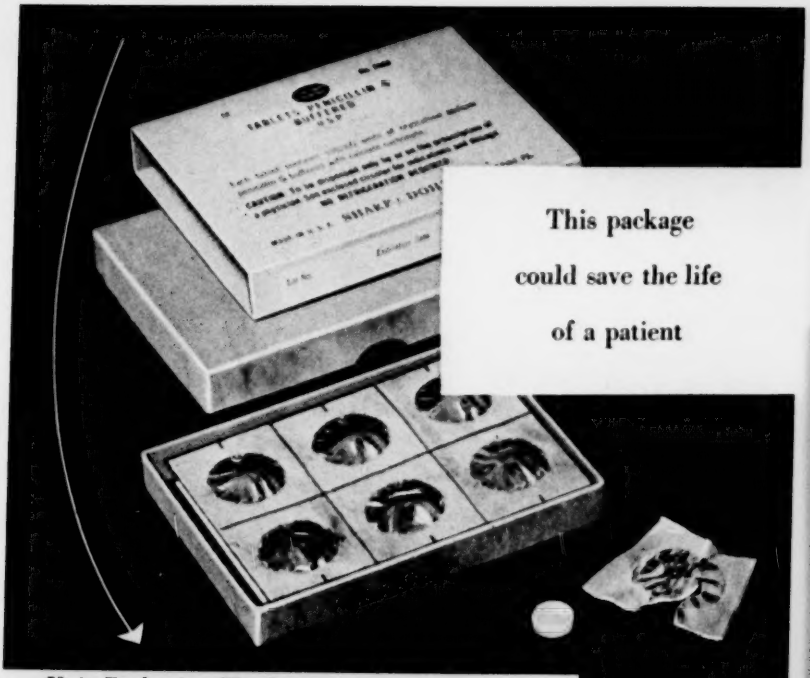
Factors influencing urinary retention include the position of the patient; the amount, type, and rate of injection of intravenous and other fluids during and immediately after surgery; fluid loss; and the degree of narcosis.

Bladder sensation is usually diminished in the still partially anesthetized or narcotized patient, and excessive urine may collect before pain is felt. Also, if the operative site is so located that pain is produced by effort to contract the voluntary abdominal and perineal muscles, vesical emptying is inhibited.

As most adults have difficulty voiding when lying in bed, Vernon S. Dick, M.D., of the Lahey Clinic, Boston, suggests that patients who are to remain supine after major operations should practice urinating in the recumbent position for a few days before surgery.

The frequency of catheterization must be related to intake and to loss of fluid by sweating, respiration, bowel discharges, and other means of elimination. For patients who tolerate intermittent catheterization poorly or when circumstances indicate considerable delay before resumption of micturition, an indwelling catheter is advisable. A urinary antiseptic should be given to patients being catheterized intermittently or with inlying catheters.

* Management of postoperative urinary retention. Lahey Clin. Bull. 7:57-62, 1950.



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Medical Forum

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Surgery of Acute Cholecystitis

TO THE EDITORS: There is no question, as Dr. Frank Glenn says, that cholecystectomy is the treatment of choice in acute cholecystitis if the patient has been properly prepared and the operation is not contraindicated by pathology in other systems.

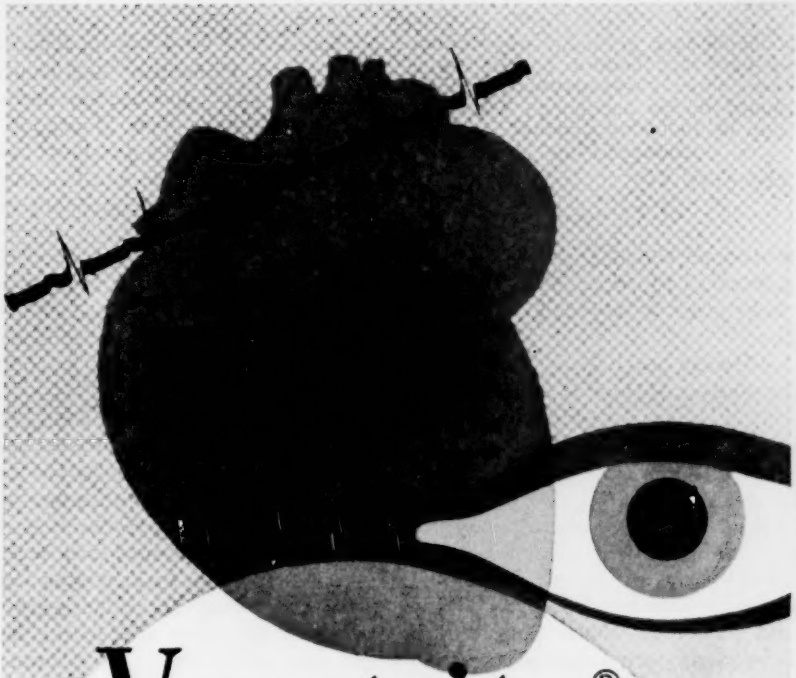
The difficulties of cholecystectomy in acute cholecystitis are encountered technically when adequate surgical help and facilities for postoperative care are not available. For this reason, cholecystostomy should never be discarded as a method of therapy in these cases, particularly when surgery is undertaken in rural communities where there is not the help or facilities to care for these patients. The repair of damaged common ducts is difficult in the most experienced hands; in the hands of less experienced operators, the results are not good and may cause death.

The following is an excerpt from the conclusions of an article (*S. Clin. North America* 25:285-300, 1945) concerning a group of 332 cholecystitis patients whom I studied intensively:

- Acute cholecystitis is a progressive disease in which the complications of gangrene, perforation, and abscess may occur in the presence of subsiding clinical symptoms, signs, and laboratory data. These complications increase the mortality and morbidity of the disease.
- In this series, the mortality and morbidity in acute cholecystitis were less when cholecystectomy was performed before the complications occurred.
- Cholecystectomy in the presence of the three main complications requires careful analysis of its indications in the individual case.
- Cholecystectomy for acute cholecystitis is safer when the gallbladder is removed from the fundus down.
- Cholecystostomy is not the operation of choice in acute cholecystitis unless local or systemic disease contraindicates removal of the viscus.
- The best results from cholecystectomy for acute cholecystitis depend upon the active cooperation of the medical men who first see the case.

Individual pathologic, local, and systemic response to gallbladder infection

*MODERN MEDICINE, Nov. 1, 1950, p. 89.



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in middle-aged to elderly persons does not have such uniform pattern that a simple surgical therapeutic rule can be applied to the age group. Treatment must be individually rationalized.

BEVERLY CHEW SMITH, M.D.
New York City

► TO THE EDITORS: The removal of gallstones as treatment for acute cholecystitis is now an established fact.

Although surgical mortality is low for elective operations on the biliary tract, it becomes considerably higher when complications such as acute cholecystitis or common duct stone occur.

Acute gallbladder disease has been repeatedly shown to be due to an occlusion of the cystic duct by a stone followed by the typical clinical and pathologic effects produced by subsequent chemical changes. Infection may be present but generally plays a secondary role to the occluded duct.

Perforation of the gallbladder with peritonitis is a serious complication of acute cholecystitis and may result from a gangrenous area in the fundus or through a Rokitansky-Aschoff sinus. This complication often occurs with minimum signs and symptoms. It cannot be overemphasized that the clinical and laboratory findings in acute cholecystitis do not always indicate the severity and progression of the underlying pathologic process.

The so-called "silent gallstone" is a potential source of cystic duct occlusion and should be removed. Procrastination may end in a fatality because the patient has not been impressed with the importance of silent stones. Frequently, such stones produce severe reflex cardiac symptoms resulting in years of unnecessary treatment and restrictions for alleged heart disease which could easily be eradicated by elective operation.

More thought should be given to the preventive aspects of acute cholecystitis by advising surgery immediately after gallbladder disease is discovered, regardless of the patient's age.

The risk of surgery as a preventive measure in the early and mild forms of the disease is far less than in the later complications of acute cholecystitis, perforation with peritonitis, and common duct stone.

In a population of increasing longevity this principle is assuming greater importance since it is in the elderly that the incidence of gallstones reaches its peak. Every physician should review all aspects of his management of gallbladder disease and weigh the risks of surgery in the early stages as a preventive measure against a probable higher mortality rate in later years.

H. T. GROSS, M.D.
Appleton, Wis.

► TO THE EDITORS: Whether an acute gallbladder should be removed or even drained is still a debatable question. Surgical judgment is difficult to evaluate, because each case presents individual problems.

As a general rule, subject to exceptions, I would say that acute obstruction of the cystic duct with associated hydrops should have a chol-

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1. Bradley, J. E.: To be published.
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Salvage Possibilities in Threatened Abortion*

TO THE EDITORS: What is the preferred treatment of threatened abortion? This question was recently raised in the Medical Forum of *Modern Medicine*, using the article, "Salvage Possibilities in Threatened Abortion," by Drs. Emmett D. Colvin, Rudolph A. Bartholomew, William H. Grimes, and John S. Fish as basis for the discussion. As these authors point out, very few have approached the subject from the clinical angle and the salvage possibilities, although Stander did so in 1942 in a study in which I collaborated (*Am. J. Obst. & Gynec.* 44:531, 1942).

Dr. Colvin et al. present a statistical study of 1,570 private cases which is postpartum and postabortal in its scope and, therefore, has the advantage of hindsight. Patients with very early pregnancies were observed at home, while those more advanced were hospitalized.

At present, we hospitalize virtually all these patients, using bed rest, sedation, plasma vitamin C determinations, cultures, and a thorough investigation to determine various factors, defects, and deficiencies as possible causes of abortion. At times, thyroid extract, ascorbic acid orally and intravenously, and vitamin K are administered as indicated. Coitus is interdicted for the remainder of the pregnancy. The use of mineral oil is also forbidden.

If the pregnancy continues, well and good. Otherwise, much clinical, laboratory, and pathologic data have been obtained during the hospital stay which will be of considerable value in the prognosis and successful management of a subsequent pregnancy.

Dr. Colvin and associates' results can be divided into three major groups: 1,098 going to term, 440 having abortions, and 32 having premature labor. These patients had received prenatal care and routine multivitamins, the exact nature and dosage of which were not revealed. In recent years, vitamin C has been added to these preparations in amounts ranging from 20 to 180 mg. per capsule. The vitamin C may have influenced their good results, since the impressive percentage of full-term infants of 69.9% is somewhat better than the 60.5% reported by Stander without specific therapy. The authors do not provide control data to show that multivitamins did or did not influence the results.

It is difficult to reconcile the authors' statement that the prophylactic use of various hormones and vitamins in threatened, spontaneous, and habitual abortion "is not justified" with their actual use of "the usual multivitamins routinely administered during antepartum care." The fact that 69.9% continued to term is not restated in the summary and conclusions. Instead, they state, "The general assertion and acceptance of the prophylactic value of hormone and vitamin therapy in threatened or habitual abortion are apparently unwarranted."

There were 440 cases, or 28%, ending in abortion. It was suggested that vitamin and hormone therapy would have been given to these

*MODERN MEDICINE, Oct. 15, p. 91.

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while the abortion was in progress and, therefore, would be of little value. The proponents of such a therapy do not disagree with this point of view, since it is generally agreed that it is preferable to begin prophylactic therapy before the patient is pregnant, especially with a history of previous threatened, spontaneous, or habitual abortion. These patients need special detection and correction of as many of the contributory factors, defects, and deficiencies as possible, in order to be managed individually in subsequent pregnancies. Statistical summaries of end results do not help in the immediate diagnostic and therapeutic management of an actual patient with threatened abortion. New therapeutic agents must be constantly employed and investigated in an attempt to lower the large percentage of abortions.

Of the 440 abortions, 318 or 72% were classified as blighted ova, one of which is illustrated in Figure 11 of their original article. This illustration also shows a large amount of decidual hemorrhage. In our experience, such bleeding, often shown to be old because of hemosiderin pigment in the decidual cells, is sometimes associated with blighted ova. Such environmental factors were suspected by Mall and Meyer as the cause of some of the abnormal ova in their series, but they lacked the data. Both placenta praevia and abruptio placenta have decidual bleeding and these lesions had a combined incidence of 16% in their group of 60 cases with fetal abnormality.

It would have been of interest to know the incidence of placenta previa and premature separation of the placenta in the entire series of 1,570 cases. Stander found an incidence of placenta previa at term of 2.9% in his study of 439 patients with threatened abortion. In our preliminary study of 500 cases of spontaneous abortion (*Texas State J. Med.* 46:739, 1950), decidual hemorrhage had an incidence of 45%, and placenta previa of 4%. Prophylactic therapy with fresh orange juice and vitamin C supplements may be of value in controlling decidual hemorrhage. Such a nutritional regimen of adequacy, including the correction of all abnormal factors, defects, and deficiencies, has yielded 80% full-term pregnancies in a number of habitual abortion patients (*Am. J. Obst. & Gynec.* 57:878, 1949).

Dr. Colvin et al. raise the question, "Is it not objectionable to administer any treatment which will dull the irritability of the uterus, and therefore permit prolonged retention of a product which has dangerous potentialities [i. e., malignant mole]?" It seems logical to cope with this fear by performing more operative completions of the abortion to provide the pathologist with additional tissue for study. Their incidence of curettage was only 3.4%.

In the discussion of this paper, Dr. Seeley advocated more curettements. Greenhill advocates frequent curettage for incomplete abortion. Stander found that 67% of 1,862 cases required operative completion.

The chief indication for intervention is profuse continued bleeding. Septic cases should not be invaded

"a unanimous decision"

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unless hemorrhage forces the issue. In these, a preliminary course of penicillin and sulfadiazine for several days may render the completion less hazardous. Intravenous pitocin drip also has been employed successfully in a few cases with the curettage. It greatly reduces blood loss during the procedure.

CARL T. JAVERT, M.D.
New York City

Fractures of the Hand*

TO THE EDITORS: Dr. E. James Morrissey in his paper on fractures of the hand has dealt with the importance of these fractures and the frequency with which they are brushed aside as minor injuries. Hand fractures are tremendously important.

Very few fractures require pulp traction. It is very important, in splinting, to place the hand in physiologic rest, and this is thoroughly dealt with in the paper.

With chip fractures of the distal tuft of the distal phalanx, it has been my experience that very few patients have any disability. In the baseball finger, another method of fixation is to flex the finger into the base of the hand and to hyperextend the distal joint by a thick pad of gauze under the end of the finger, keeping it strapped in this position for six weeks.

For fractures of the metacarpals, it is my belief that fixation by Kirschner wire is the method of choice and produces the best results at the earliest time. This applies to fractures of the neck or shaft and is not necessary for most fractures of the base. The principle is that the fracture is reduced by traction and countertraction.

If the second metacarpal is broken, the wire is passed laterally through the head of the second into the third and is left protruding about ½ in. through the skin. While traction is maintained, a Colles type of plaster is applied around a cork over the end of the wire. By this method there are two fixed points—the head of the third metacarpal, and the cork in plaster—and the fracture cannot change position.

Fractures of the third are dealt with in the same way. Fractures of the fourth and fifth are wired from the ulnar side of the hand in a similar fashion. This permits full finger movement within a few days and a very useful hand.

In fracture dislocation of the base of the first metacarpal, Bennett's, I feel that the most satisfactory method of fixation is by a Kirschner wire. The dislocation is reduced by traction on the thumb and index finger in the position of grasping, so that index and thumb could touch. When reduction is perfect, a Kirschner wire is passed through the distal part of the first metacarpal and into the shaft of the second metacarpal, and a cork is placed over the projecting ½ in. of wire. A plaster cast is applied to include the cork, up to, but not including the distal joint of the thumb.

The advantage of this method is that fixation is adequate and the patient can grasp objects between thumb and index finger.

H. R. C. NORMAN, M.D.
Toronto

*MODERN MEDICINE, May 15, 1950, p. 66.

Diagnostix

Here are diagnostic challenges presented as they confront the consultant from the first clue to the pathologic report. Diagnosis from the Clue requires unusual acumen and luck; from Part II, perspicacity; from Part III, discernment.

Case MM-185

THE CLUE

ATTENDING M.D: The next patient I'd like to discuss with you is a 20-year-old girl. She has bilateral sciatica which becomes worse with exertion and is aggravated by coughing and sneezing. She has had dull pain in the left sacroiliac and

left gluteal region every night for the past month and gets relief by rubbing with liniments and from heat and aspirin. The condition is of two years' duration and, although she is incapacitated now, she is better than a year ago.

VISITING M.D: What's the history?

ATTENDING M.D: Two years ago she began to have catches in her back so that she could not straighten up after leaning forward and lifting anything. These occurred intermittently for about three months, at which time the leg muscles began to ache. A murmur was heard over the heart, and some twitching choreiform movements were observed. This illness was diagnosed as rheumatic fever by the attending physician and she was hospitalized for three months. During this time the left sciatic pain began and became quite severe. When permitted to get up she walked with a limp because of the pain. She had lost an inch and a half in height and the doctor noted definite kyphoscoliosis.

PART II

VISITING M.D: Was there any effect from strain at that time?

ATTENDING M.D: Coughing and sneezing aggravated the pain in the left sacroiliac region and sciatic radiation. The discomfort from straining at stool was sufficiently severe so that on occasion she resorted to enemas or laxatives. There was some tenderness over the third and fourth lumbar vertebrae, on the left more than on

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the right. Five months ago the sciatic radiation appeared on the right. About four weeks ago a dull constant pain kept her awake two nights.

VISITING M.D: Was she unable to sleep because of pain, or did the pain waken her out of a sound sleep?

ATTENDING M.D: She was wakened by sudden pain and could not sleep for the following forty-eight hours.

VISITING M.D: Were there any important clues in the story you obtained from her?

ATTENDING M.D: No. She had no illness or sciatica before the present episode. Two years ago a classmate who sat across the aisle from the patient died of tuberculosis. She was coughing and spreading the tubercle bacilli and 2 other classmates died of the disease.

VISITING M.D: What do the chest and spine roentgenograms show, and what is the tuberculin test?

ATTENDING M.D: The chest film shows kyphoscoliosis and some fuzziness of the outlines of the left third and fourth lumbar foramina, which seem a little wide. There may be erosion of these vertebrae posteriorly. The tuberculin skin test was negative.

VISITING M.D: How did the radiologist interpret this?

ATTENDING M.D: He called the film negative, saying the widening of the foramina was inconclusive.

PART III

VISITING M.D: We are concerned here with a young person with kyphoscoliosis which she did not have before the recent illness. The situ-

(Continued on page 154)

"Remind me, sergeant, to write an article blasting socialized medicine, will you?"

without distraction

in Cardiac Decompensation

in Coronary Disease

in Hypertension

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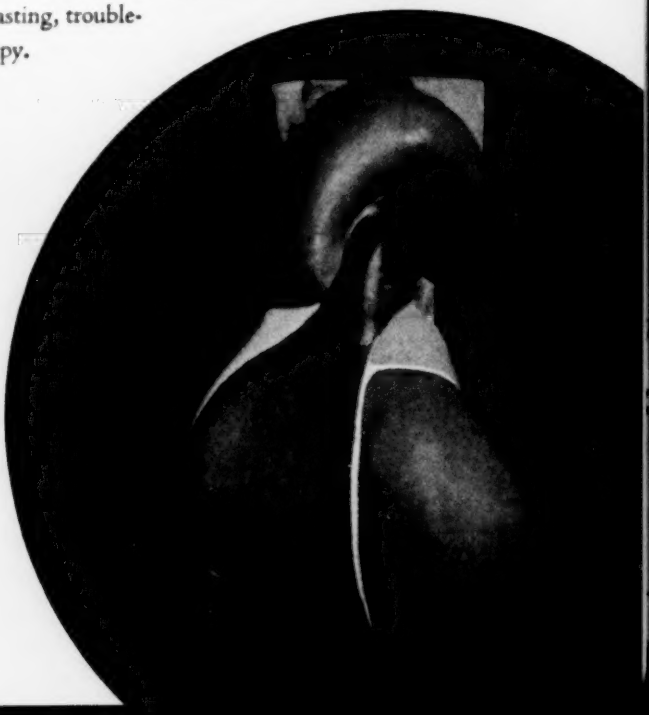

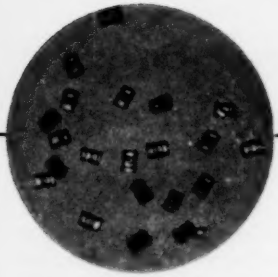

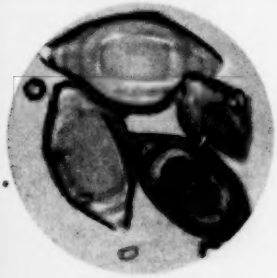

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with **Phenobarbital** • Tablets

for trouble-free, prolonged cardiac therapy

ation is confused by two red herrings: the diagnosis of chorea and rheumatic fever, and the tuberculous roommate. Of course, one thinks at once of a ruptured disk, but there are several inconsistencies. Neurologic examination is completely negative, there is curvature of the spine, atrophy of the left leg, some loss of weight and height, and percussion tenderness over lumbar 3, 4, and 5. I find Lasègue's sign negative and ankle jerks and sensation normal. The patient has an intraspinal lesion and I think we should immediately have a myelogram. I believe this is probably a tumor, not a disk. There is no evidence of trauma, and the condition is progressive despite the fact that she has less pain than a year ago.

PART IV

SURGEON: *(The myelogram revealed a suggestive lesion at lumbar 2, and surgical exploration is being done.)* We're doing a bilateral lumbar laminectomy. An enormous tumor extends from the conus to the fourth lumbar vertebra. The growth is not well incapsulated, and many of the nerve roots are adherent to the capsule. It's strange that with this much infiltration in the nerve roots the patient did not have more nerve root symptoms. The tumor seems to arise from a filum terminale. The lower end of the tumor is about lumbar 4, which is where the sciatic nerve begins.

PATHOLOGIST: *(After examining the tumor)* This tumor is an ependymoma. The prognosis is fair.

"I'm the one who's supposed to say 'ah'!"

GRATIFYING IMPROVEMENT IN ACNE, KELOIDS, WITH NEWLY ISOLATED LIVER FRACTION

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reduces papules, pustules, comedones[1,2,3,4] • modifies unsightly scarred areas[1]

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In keloids, constriction of capillaries and reduction of their permeability prevents flow of blood serum into subcutaneous tissues, thus decreasing the distention of the skin and the accompanying inflammation.[4,6] Administration of **KUTAPRESSIN** before, during, and after surgical removal of keloids decreases loss of blood serum into the site of scar formation and inhibits regrowth.[5]

REFERENCES: 1. Marshall, W.: J. M. A. Alabama 13: 255 (1941). 2. Lichtenstein, M. R., and Stillians, A. W.: Arch. Dermat. & Syph. 45: 959 (1942). 3. Stillians, A. W.: Mississippi Valley M. J. 64: 135 (1942). 4. Marshall, W., and Schadeberg, W.: Wisconsin M. J. 49: 369 (1950). 5. Marshall, W.: Paper read before Midwestern Section of the American Federation for Clinical Research, November 2, 1950.

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Basic Science Briefs

Obstetrics

Blood Volume in Pregnancy

During gestation, the volume of the mother's heart increases about 170 cc., and blood volume about 1,500 cc. Dr. S. R. Kjellberg and associates of Karolinska Sjukhuset, Stockholm, conclude that the heart enlarges chiefly because of greater blood content but partly through myocardial growth. Variations in heart and blood volumes are not directly proportional. Heart contours of 23 primiparas and 23 multiparas aged 18 to 44 years were examined radiologically, and cardiac volume was calculated by a modification of the Larsson-Kjellberg technic. Blood volume was estimated from relative and total hemoglobin, the latter determined by Sjöstrand's carbon monoxide method.

Acta med. Scandinav. 138:421-429, 1950.

"Is your name on the sick book? Stick out your tongue . . . Corporal give him an APC."

Metabolism

Pituitary Function

The decreased ability of hypophysectomized rats to synthesize glycogen from glucose is restored by ACTH. Greatly disturbed phosphorus levels also return to normal, report Drs. L. G. Abood and J. J. Kocsis of the University of Chicago and the Armour Research Laboratory, Chicago. Anaerobic glycolysis of the brain, after 20% reduction by pituitary resection, is likewise improved by the hormone.

Proc. Soc. Exper. Biol. & Med. 75:55-58, 1950.

Cardiology

Saliva Electrolytes

Congestive heart failure is associated with unusually low concentrations of sodium and chloride in the saliva and with high potassium levels. No difference is noted whether the diet is high or low in sodium, with salt intake ranging from 1 to 10 gm. or more daily. In contrast, noncardiac subjects on a low-salt regimen have less salivary sodium and chloride than a group receiving a regular diet, and electrolytes are in the range for cardiac patients. Dr. Abraham G. White and associates of the Montefiore Hospital, New York City, found no correlation between electrolyte concentrations of saliva and blood. Samples were collected in the morning before the patients had eaten.

J. Clin. Investigation 29:1445-1447, 1950.

Nutrition

Sodium Deficit with Tuberculosis

Far advanced tuberculosis may be associated with an unusual type of sodium depletion causing no symptoms. Hyponatremia occurs without dehydration, peripheral circulatory failure, or hyperalkalemia, and adrenal and kidney function are seemingly unimpaired. Renal clearance of creatinine, mannitol, and urea is normal. Dr. E. A. H. Sims and collaborators of Yale University, New Haven, Conn., believe that the primary factor is reduction of cellular osmotic pressure owing to severe debility and malnutrition. Low blood sodium was observed in 9 patients with pulmonary tuberculosis and 1 with miliary infection. Values were normal, however, for 14 others with moderate or severe tuberculosis and in 5 instances of malnutrition associated with other disease.

J. Clin. Investigation 29:1545-1557, 1950.

Hypertension

Vasopressor in Blood

Pherentasin, a powerful pressor substance rarely found in healthy subjects, has been obtained in fairly pure form from arterial blood of hypertensive patients. The usual concentration is 10 to 20 γ per liter, report Drs. Henry A. Schroeder and Norman S. Olsen of Washington University, St. Louis. When the same level is produced in rats, diastolic pressure rises 20 to 40 mm. of mercury for thirty to sixty minutes. Pherentasin is consistently obtained from the blood of patients with renal hypertension and, in smaller amounts, from those with neurogenic or endocrine forms, but almost none from malignant hypertensive individuals. The vasopressor is nonprotein and contains an amine and a carbonyl group.

J. Exper. Med. 92:545-559, 1950.

Oncology

Motile Cancer Cells

The metastatic capability of malignant tissue may be partly related to independent ameboid motion of single cells. Tissue tends to separate because of calcium deficiency, and detached cells may invade interstitial spaces of neighboring healthy areas. By means of cinephotomicrographs, Drs. H. T. Enterline and Dale Rex Coman of the University of Pennsylvania, Philadelphia, recorded activity of material from human breast cancer, renal cancer, mesenteric leiomyosarcoma, mouse fibrosarcoma, and other animal tumors. Average speed of human malignant cells was 0.3 to 1.4 μ per minute and the maximum rate 0.9 to 4.4 μ. Benign glandular epithelial cells from a cystic breast traveled about 0.3 μ per minute, with maximum rate of 1.2 microns.

Cancer 3:1033-1038, 1950.

when "eating for two" ...plenty of citrus fruits

Most obstetricians today insist that their mothers ingest plenty of vitamin C, particularly after the first trimester[1] (8 oz. citrus juice during pregnancy, 12 oz. while lactating).[2] When an adequate nutritional regimen (with particular reference to vitamin C) is followed throughout pregnancy, toxemia is reduced[3]—more babies are born normally and with a higher birth weight[3,4]—premature and still births are fewer[3,4]—and both maternal and infant health are improved postpartum.[5] Most mothers enjoy the flavor of fresh Florida citrus fruits (so rich in vitamin C and containing other nutrients*), as well as the energy pick-up provided by their easily assimilable fruit sugars.[5]

* * *

**Citrus fruits – among the richest known sources of vitamin C – also contain vitamins A and B, readily assimilable natural fruit sugars, and other factors, such as iron, calcium, citrates and citric acid*

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References:

1. Burke, B. S. and Stuart, H. C.: J.A.M.A., 137:119, 1948. 2. Burke, B. S. et al.: Am. J. Obst. & Gynec., 46:38, 1943. 3. Burke, B. S. et al.: J. Nutrition, 26:569, 1943. 4. Javert, C. T. and Finn, W. F.: Texas State J. Med., 46:745, 1950. 5. McLester, J. S.: Nutrition and Diet in Health and Disease, Saunders, Phila., 4th ed., 1944. 6. National Research Council: "Recommended Food and Nutrition Board, Daily Allowances for Specific Nutrients," Wash., D. C., 1948. 7. People's League of Health: J. Lancet, 2:10, 1942.

FLORIDA
Oranges • Grapefruit
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Short Reports

Endocrinology

Nebulized Cortisone for Bacterial Pneumonia

Symptoms of pneumococcic pneumonia are greatly modified by inhalation of cortisone, although bacteria are not affected. At the Henry Ford Hospital, Detroit, an elderly man with type VII infection was relieved of pain within three hours after commencement of therapy, appetite returned in five, and high fever subsided in twelve. Drs. William H. Reeder and George S. Mackey administered an aerosol containing 5 to 8 mg. every thirty to sixty minutes for thirty-three hours. The feeling of well-being was not accompanied by much change in roentgen appearance of lesions. With reduction of dosage, the temperature rose, and when the drug was withheld, toxicity, cyanosis, dyspnea, and pain returned.

Dis. of Chest 18:528-534, 1950.

Public Health

U.S. Cancer Facilities

The United States now contains 268 cancer detection centers, 165 cancer diagnostic clinics, 631 clinics for both diagnosis and treatment of malignancy, and 17 cancer hospitals. Services and facilities are listed for workers in the field in a source book recently published by the Federal Security Agency. The report was prepared by the National Cancer Institute of the Public Health Service.

Industrial Medicine

Women Absentees

In the industrial field, women leave their work 2.5 times as often as men for periods exceeding a week, reports Dr. W. M. Gafafer. Respective absences per 1,000 persons are 254.5 and 95.5, though men have a higher off-the-job accident rate, and major causes of ill health are about the same in the two sexes.

Antibiotics

Amebicidal Activity

For apparently the first time on record, an antibiotic has destroyed *Endamoeba histolytica* in vitro by direct attack rather than by inhibiting associated bacteria. Prodigiosin, a pigment extracted from surface cultures of *Serratia marcescens*, was employed in several dilutions against two strains by Drs. William Balamuth and Morgan M. Brent of Northwestern University, Evanston, Ill. At 1:2,000,000, individual protozoa became vacuolated, motionless, and pink and at higher concentrations were dissolved, with few persisting twelve hours. The NRS type of ameba grown with *Aerobacter aerogenes* was killed at 1:400,000, and even huge inocula of the more resistant UC strain associated with mixed bacteria were obliterated at 1:100,000. Related organisms, oxidation-reduction potentials, and *p*H were not adversely affected.

Proc. Soc. Exper. Biol. & Med. 75:374-378, 1950.

the oral route is the simplest

For maintaining the edema-free state, here—at last—is truly effective oral mercurial diuretic therapy. One or two Tablets MERCUHYDRIN® with Ascorbic Acid daily (more when indicated) generally controls cardiac edema with

greater convenience · greater economy · greater safety

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WITH ASCORBIC ACID

After parenteral therapy, your patient has been brought to unfluctuating basic weight. Then systematic oral therapy employing Tablets MERCUHYDRIN (brand of meralluride) with Ascorbic Acid may eliminate the need for injections entirely in mild decompensation. In more advanced cases, you can greatly reduce the number of injections required to maintain your patients free of edema.

Prolongation of the interval between injections simplifies management. The diuretic response is good, the tablets are well tolerated, the method is convenient, and the economy considerable.

Packaging: Tablets MERCUHYDRIN with Ascorbic Acid, available in bottles of 100 tablets. Each tablet contains meralluride 60 mg. (equivalent to 19.5 mg. mercury) and ascorbic acid 100 mg.

Lakeside Laboratories, INC.

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Nutrition

Pancreatin for Avitaminosis

Vitamin A absorption is increased for patients with severe cystic fibrosis of the pancreas by administration of pancreatin. The glandular product employed by Dr. Gordon E. Gibbs of the University of Maryland, Baltimore, had lipolytic activity for 1 gm. equal to 40 cc. of duodenal aspirate, much higher than in material unsuccessfully used by others. In 32 cases, average plasma vitamin A mounted from 31 to 122 μg. three hours following doses of halibut liver oil. Without pancreatin, the rise was 34 to 37 μg. No consistent effect was produced for 10 patients with celiac disease, who had normal lipase before administration.

Pediatrics 6:595-600, 1950.

"But he's sick and I didn't want to call just any old doctor."

Nutrition

Alcoholism and Allergy

Chronic alcoholism is generally associated with sensitivity to native food ingredients of the favorite liquor, such as corn, wheat, grape, or apple. The pharmacologic response to repeated drinks is nonataxia, facial flush, and happy companionability, but the allergic response is ataxia, pallor, anorexia, nausea, vomiting, and morose, seclusive, and belligerent behavior. Dr. Theron G. Randolph of Chicago found masked allergy in 37 of 40 reformed alcoholics. Spirits induce and maintain chronic symptoms of sensitivity. Drinking the beverage immediately alleviates distress for the time being, and abstinence is followed by delayed increase in symptoms. Thus allergy may determine preference for specific liquors, compulsive drinking, and withdrawal effects.

Proc. Central Soc. Clin. Research 23:84-86, 1950.

Dermatology

New Fungicide

An antibiotic principle of *Streptomyces fradiae* has in vitro activity against several aerobic actinomycetes and deep fungi. The term Neomycin C is suggested by Dr. Wilfred E. Wooldridge and Mary Hoffman of Washington University, St. Louis. *Phialophora* and several species of *Nocardia* were destroyed by the agent, although the dermatophytes and two yeast-like organisms were not affected. However, the fungicide may be toxic, since the lots of Neomycin containing the new factor are toxic to the kidneys.

J. Invest. Dermat. 15:351-353. 1950.

Doctor... listen to this conversation about you!

PATIENT... *There was so little discomfort in having that mole removed.*

NURSE... *The Doctor's new technic with the HYFRECATOR is wonderful!*

PATIENT... *You can tell the Doctor I'm going to have my sister come in. She worries about a mole on her abdomen.*

NURSE... *It's a good idea to have him look at it to make sure... and he'll know if it should be eradicated with the HYFRECATOR.*

And Doctor... Please Note

The increasingly widespread public knowledge of the danger of moles as fore-runners of skin cancer have made your patients more receptive to your suggestion that all suspect lesions be eradicated. New reprints on Precancerous Lesions are available. Write your name and address – mail for your copies.

Over 70,000

HYFRECATORS

in daily use

to eradicate moles, warts, unwanted hair and other superficial growths. Many doctors use the HYFRECATOR...High Frequency Eradicator...for fulguration and bi-active coagulation as well as desiccation. They find that the HYFRECATOR'S double spark gap power, accurately controlled and smoothly graded current... exactly meets their individual office electrosurgical demands.

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Please send me free reprints on Precancerous Lesions and Literature on the Hyfrecator.

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Los Angeles 32, California

Medical Education

Poliomyelitis Fellowships

Candidates interested in viral, biochemical or biophysical, orthopedic, neurologic, epidemic, or other aspects of poliomyelitis may apply for pre- or postdoctoral fellowships extending one to three years, with the privilege of renewal. Stipends range from $1,200 to $1,800 a year plus tuition without doctorates, otherwise from $3,600 to $7,000. Applicants must be U.S. citizens in good health, with or working for an M.D., Ph.D., or equivalent degree. Marital and dependency status is considered in determining income. Complete information can be obtained from the Division of Professional Education, National Foundation for Infantile Paralysis, 120 Broadway, New York 5, N.Y.

Experimental Surgery

Pancreatic Duct Anastomosis

When the head of the pancreas is removed, the pancreatic duct should be sutured directly to an opening in the duodenal wall, with careful apposition and temporary use of a tube. Only a few more minutes are needed than for an implant or closure of the pancreas at the cut end. In determining the best procedure, Drs. Donald J. Ferguson and Owen H. Wangensteen of the University of Minnesota, Minneapolis, employed eight methods of pancreatic-intestinal juncture on 61 dogs: direct suture anastomosis with and without a tube, implantation without tube and with ordinary or very small tube, implantation by Varco technic, aseptic implantation with necrotizing suture, and implantation of the sectioned end of pancreas. In most cases the duct was joined to the duodenum about 10 cm. below the original location.

Ann. Surg. 132:1066-1074, 1950.

Honors

Foreign Scientists Nominated

The New York Academy of Sciences nominated 10 foreign scientists as honorary life members at the 1950 annual meeting. The majority are in biologic fields, including Dr. William T. Astbury, English biophysicist; Dr. Charles H. Best, of the University of Toronto; Dr. Frank M. Burnet, Australian authority on virus diseases; Dr. James B. Collip, medical dean at the University of Western Ontario; a Chilean biochemist, Dr. Eduardo Cruz-Coke; and Dr. Bernardo Houssay of Argentina. A research prize of $200 was given to Dr. Paul B. Weisz, biologist at Brown University.

Medical Education

Clinical Chemistry Board

A national certifying board for those trained in clinical chemistry has been formed by representatives from three organizations: the American Chemical Society, the American Institute of Chemists, and the American Society of Biological Chemists. The new committee, analogous to the various medical specialty boards, is headed by Dr. Otto A. Bessey, University of Illinois, Chicago. Information may be obtained from the Secretary-Treasurer, Dr. J. W. E. Harrisson, 1921 Walnut St., Philadelphia.

FIBERGLAS REPORTS TO THE PROFESSIONS*

Fiberglas Cloth used as Backing for REESE DERMATAPE

(Reg. U. S. Pat. Off.)

(. . . A Skin Transfer Adhesive Tape)

A new technique for obtaining accurate skin grafts is made possible with the Reese Dermatape and the Reese Dermatome†. The technique enables any surgeon consistently and successfully to excise skin grafts from .008" to .034", to tailor the grafts accurately, and to transplant them without stretching or contracting, and usually without suturing.

An important feature of the Reese Dermatape is the coated backing cloth, woven of Fiberglas yarns.

This is important because:

1—Fiberglas cloth will not stretch.

2—Fiberglas cloth has enormous tensile strength, allowing it to be tightened on the Dermatome without danger of breaking.

3—Fiberglas cloth is impervious to aqueous and alcoholic solutions, permitting adequate sterilization by immersion.

4—Fiberglas cloth securely anchors the rubber splint *during* excision of the skin graft.

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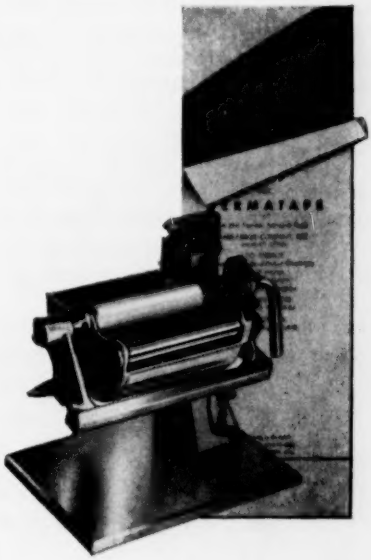
* * *

Inert, inorganic, nonallergenic, nonsensitizing and chemically stable Fiberglas fibers produce no harmful effect on human tissue . . . Owens-Corning Fiberglas Corporation, Dept. 29-B3, Todelo 1, Ohio.



†*Developed by John D. Reese, M.D., Assistant Professor of Plastic Surgery, Jefferson Medical College, Philadelphia, Pa., in conjunction with Irvington Insulator & Varnish Co., Irvington, N. J., and with Lee Tire & Rubber Co., Conshohocken, Pa. Dermatape is used with the Reese Dermatome, manufactured by Bard-Parker Co., Inc. (Agent), Danbury, Conn.*

OWENS-CORNING FIBERGLAS

**Fiberglas is the trade-mark (Reg. U. S. Pat. Off.) of Owens-Corning Fiberglas Corporation for a variety of products made of or with fibers of glass.*

Endocrinology

Cortisone and Diabetes

The effect of adrenal hormones on rheumatoid arthritis is apparently not closely dependent upon metabolic influence. Patients with severe diabetes and active rheumatic disease were examined during various therapeutic regimens by Dr. E. M. Brown, Jr., and associates at the University of Pennsylvania, Philadelphia. To produce adrenal cortical response, the customary doses of insulin were reduced. Although urinary excretion of glucose, nitrogen, and ketones was increased, arthritis was not affected. When ACTH or cortisone was administered, the joint condition improved greatly, regardless of whether the manifestations of diabetes were exaggerated or controlled at the time.

J. Clin. Endocrinol. 10:1363-1374, 1950.

Pharmacology

Cocaine Toxicity

The amount of barbiturate usually given to prevent cocaine reactions is probably far too small. About half the anesthetic dose of pentobarbital, equal to 3 times the sedative dose, is required for protection of rabbits and dogs. In treatment of cocaine intoxication, only enough barbiturate is needed to stop convulsions. Larger amounts may cause respiratory failure, warn Drs. John E. Steinhaus and Arthur L. Tatum of the University of Wisconsin, Madison. Cardiovascular depression from therapeutic doses of cocaine may be counteracted by epinephrine. Contrary to report, the latter drug produced no ventricular fibrillation when given to 30 animals.

J. Pharmacol. & Exper. Therap. 100:351-361, 1950.

"It's most annoying to hear the interns refer to the medical technician as the urine Anna Liza."

Life's Weary Moments

Think of a gag that fits the illustration. For every issue a new gag is published and the author is sent $5. The Feb. 15 winner is

A. H. Warner, M.D.
Queens, N.Y.

Mail your caption to The Cartoon Editor
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Heinz Strained Beef And Liver Soup

Infants Like The Flavor And Texture Of This Dish!

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—every one outstanding for flavor, color and texture!

CHOICE beef, select livers, potatoes, carrots and other vegetables make Heinz Strained Beef and Liver Soup a wholesome, nourishing dish for the babies in your care! Expertly cooked and strained to a smooth consistency, this protein-rich soup is also a dependable source of riboflavin, iron and Vitamin A. And like all Heinz Baby Foods, Heinz Strained Beef and Liver Soup is made to a quality tradition mothers know and trust!

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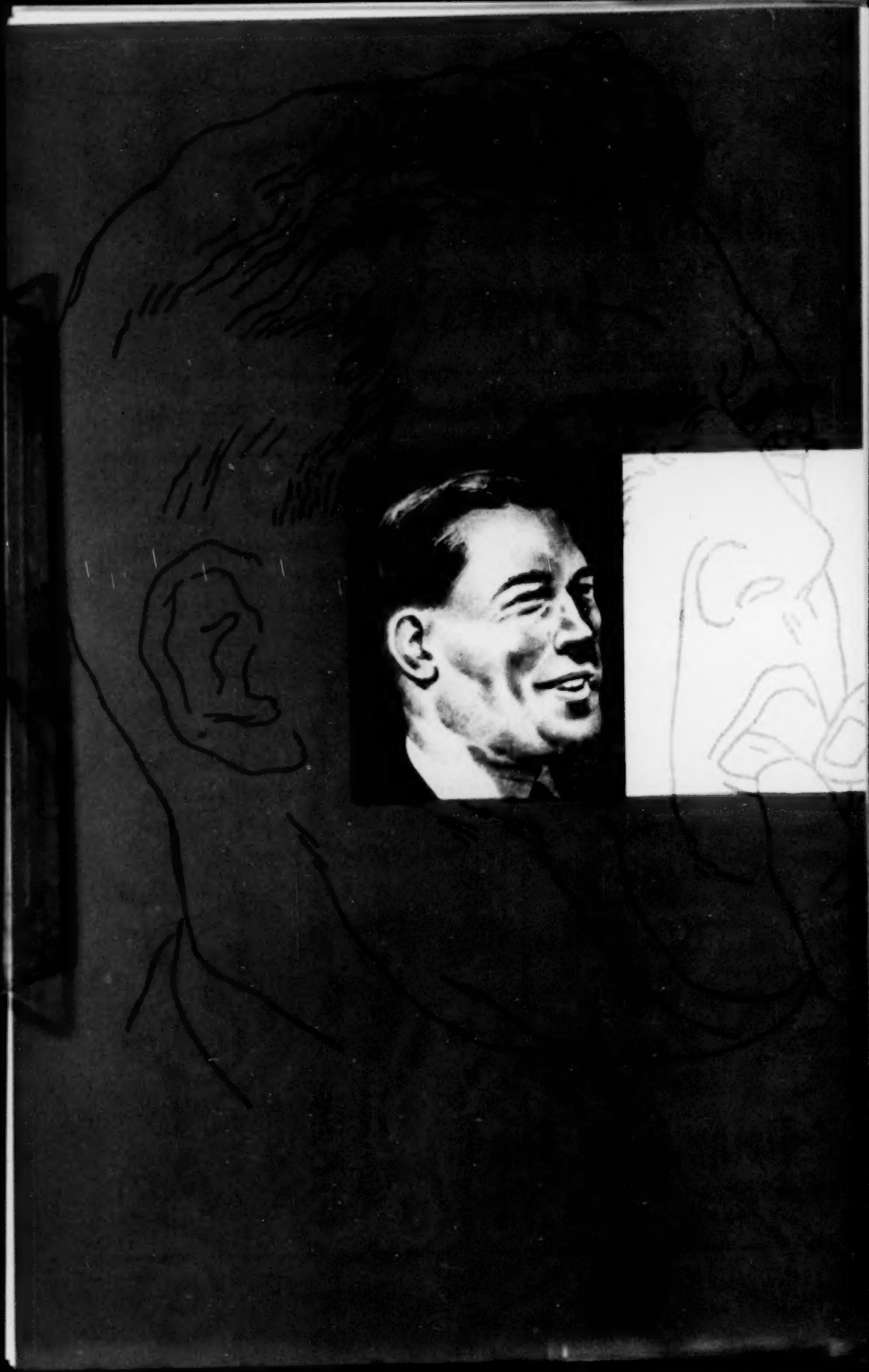
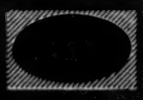




Appointments

New Director Is Named at National Institutes of Health

Dr. William H. Sebrell, Jr., succeeds Dr. Rolla E. Dyer as director of the National Institutes of Health under the Public Health Service. Formerly head of the Experimental Biology and Medicine Institute, the new director added greatly to knowledge of the vitamin B complex and was instrumental in drawing up the first international standards of nutrition for the League of Nations.

Public Health

Rodent Control

Rats are outwitted by a type of poison, warfarin, that differs from all others in two respects: It kills only after repeated doses, and does not arouse enough suspicion for bait refusal. Patent to the formula, 3-(alpha-acetonylbenzyl)-4-hydroxycoumarin, is held by the Wisconsin Alumni Research Foundation. Rodents die of hemorrhagic shock caused by the inhibition of prothrombin formation and capillary injury. Drs. Wayland J. Hayes, Jr., and Thomas B. Gaines of the U.S. Public Health Service carried out successful field trials against wild Norway rats at Savannah, Ga., some in an old focus for typhus. From 85 to 100% of animals were killed at sites where ANTU was 50 to 80% effective and thallium sulfate 72 to 94%. Yellow corn meal containing 0.05 mg. per gram was an excellent bait. A total of 0.69 mg. per rat, or 2.87 per kilogram, was lethal, and infestation was generally controlled in two or three weeks. Food was prepared with an electric mixer and dispensed in small glass bowls holding 300 cc. To protect other animals from eating the poisoned corn, bait may be placed in stations of wood and wire net. Presumably, dogs and cats eating the poisoned rats for several days may be killed.

Pub. Health Rep. 65:1537-1555, 1950.

Obstetrics

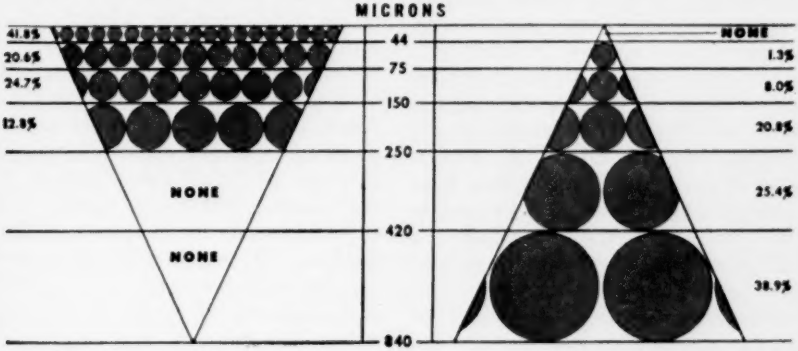
Antidiuretic Hormone

Blood from women in the last half of pregnancy has the ability to inactivate the antidiuretic action of the posterior pituitary hormone. The inhibiting factor, probably an enzyme, develops between the fourteenth and twenty-first weeks of gestation and gradually disappears after delivery. This antagonist of the antidiuretic hormone is employed by Dr. William J. Dieckmann and associates of the University of Chicago to evaluate the potency of posterior pituitary solution. Citrated blood of a pregnant woman and 0.04 unit of Pitressin are incubated for an hour at 100.4° F., and 10 cc. of plasma is withdrawn. Diuresis is established by 1,800 cc. of water swallowed in two and a half hours, and urine is obtained by catheter at thirty-minute intervals. After the first hour, the plasma is injected intravenously, and subsequent urine volume and electrolyte concentrations are noted. With blood from nonpregnant subjects, ninety-minute volumes are 17 to 42% of the levels at the time of plasma injection, but with the inhibiting factor proportions are 51 to 284%.

Am. J. Obst. & Gynec. 60:1043-1050, 1950.

Particle Size

AN INDEX TO READY DIGESTIBILITY



Libby's STRAINED and HOMOGENIZED CARROTS

CARROTS MERELY STRAINED

THE ready digestibility of Libby's Strained AND Homogenized Baby Foods, and their early tolerability, are graphically shown as physical changes which Libby's exclusive process of homogenizing brings about.

For instance, in carrots that have only been *strained*, less than 30% of the food substance presents particles under 250 microns in size—more than 70% is composed of particles up to and over 840 microns in size. BUT when this substance undergoes Libby's *homogenizing* process, there remain no particles over 250 microns in size; 87% are smaller than 150 microns.

Thus digestion is facilitated, and utilization of contained nutrients, such as iron, is enhanced. Since cellulose fibers are comminuted to ultra-small size, Libby's Homogenized Baby Foods may be fed with safety as early as the fifth week of life and are well tolerated.* Yet this feature carries no price penalty, for Libby's cost the mother no more than ordinary, merely strained, baby foods.

*Reprints of clinical studies are available on request.

Libby, McNeill & Libby • Chicago 9, Illinois

Libby's

HOMOGENIZED BABY FOODS

Neurology

Spinal Fluid Cell Count in Air Encephalography

During air ventriculography with alternate withdrawal and replacement of cerebrospinal fluid, the cell count rises considerably. The height attained is in proportion to the original level. Mononuclear forms are largely responsible. Dr. Edwin R. Bickerstaff of the United Birmingham Hospitals, England, determined values at four stages of the procedure: at the start, after injection of 25 and 50 cc. of filtered air or oxygen, and at the end. Cells increased in 66 of 68 cases and rose within ten minutes in 50. Final levels were 30 to 92 cells per cubic millimeter in 22 instances. Averages for the last count ranged from 22 with 1 or no cells initially to 53 with 5 to 10 cells.

Lancet 259:683-685, 1950.

Vital Statistics

U.S. Mortality

The lowest death rate in U.S. records, 9.6 per 1,000 population, is announced for 1950 by Dr. Louis I. Dublin, chief statistician of the Metropolitan Life Insurance Company. Mortality dropped 1% from 1949, with new low points for maternity, newborn, tuberculosis, and home accident levels and substantial gain in control of infection. Whooping cough was the only childhood disease in which fatalities failed to decline. Rises occurred for cancer, diabetes, chronic conditions of the heart, kidneys, and blood vessels, influenza, and accidents in automobiles and occupations.

Public Health

Nursing Research

A five-year, million dollar research of nursing practice has been launched by the American Nurses' Association. From the outcome may be determined the amount and quality of nursing service required by the American people. Importance of the program is heightened by a crucial shortage of professional nurses in the national emergency. Studies will be conducted in hospitals under guidance of a committee representing medical, hospital, and women's organizations, as well as nursing fields. Chairman is the Rev. John J. Flanagan, S. J., Executive Director of the Catholic Hospital Association of the United States and Canada.

Epidemiology

Poliomyelitis Grants

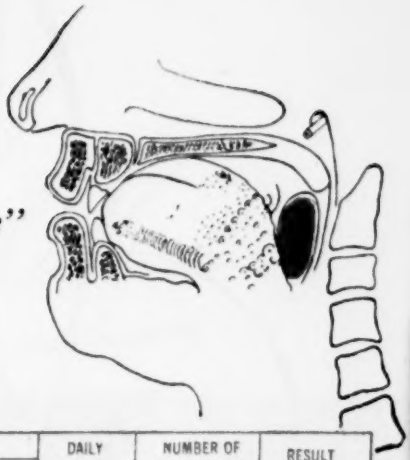
Universities and research centers in sixteen states and Canada have been assigned approximately $1,500,000 by the National Foundation for Infantile Paralysis for investigation and professional education in poliomyelitis. Approved projects will seek effective vaccine, a chemical agent to protect nerve cells from damage, a rapid diagnostic test, and antiserum that will increase individual resistance to paralysis. Funds will go to sixteen institutions for virus research, to nine for better methods of treatment, and to five for professional training. Since 1938, more than $25,000,000 in March of Dimes collections has been spent for research and education, in addition to $102,000,000 for patient care.

in acute follicular tonsillitis . . .

"prompt clinical response"

with

Terramycin



CASE	DIAGNOSIS	CULTURE		DAILY DOSE GM.	NUMBER OF DAYS TREATED	RESULT
		SOURCE	ORGANISM			
29	Acute follicular tonsillitis	throat	Streptococcus pyogenes	4	3	Prompt clinical response. No fever after 24 hours of treatment

Case report taken from Herrell, W. E.; Heilman, F. R.; Wellman, W. E., and Bartholomew, L. A.: Proc. Staff Meet., Mayo Clin. 25:183 (Apr. 12) 1950

CRYSTALLINE

Terramycin

HYDROCHLORIDE

Dosage: On the basis of findings obtained in over 150 leading medical research centers, 2 Gm. daily by mouth in divided doses q. 6 h. is suggested for most acute infections. In severe infections, a high initial dose (1 Gm.) or higher daily doses (3 to 6 Gm.) should be used. Treatment should be continued for at least 48 hours after the temperature is normal and acute symptoms subside.

Supplied: 250 mg. capsules, bottles of 16 and 100;
100 mg. capsules, bottles of 25 and 100;
50 mg. capsules, bottles of 25 and 100.

Pfizer

Antibiotic Division

CHAS. PFIZER & CO., INC., *Brooklyn 6, N. Y.*

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without oil

—presents methylcellulose as a gel, with magnesium hydroxide in less than laxative dosage to maintain hydration of the gel by osmosis.

Each tablespoonful contains:

METHYLCELLULOSE	0.3 GM.
MAGNESIUM HYDROXIDE	0.6 GM.

The Turicum formula assures:

- lubricous bulk to encourage normal evacuation
- good distribution throughout the bowel
- no bloating
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- no interference with utilization of oil-soluble vitamins
- no danger of lipid pneumonia
- no leakage

TURICUM IS AVAILABLE IN ONE PINT BOTTLES

Gastroenterology

Massive Gastric Hemorrhage

Gelfoam and thrombin swallowed at intervals after onset of severe gastroduodenal bleeding usually form a hemostatic clot. Dr. Meyer O. Cantor and associates of Detroit have treated 73 consecutive patients conservatively without a death, although the red cell count on admission was usually under 2,500,000 and shock often evident. If the source of hemorrhage is peptic ulcer, 2 tbs. of gelfoam mixed with 2 oz. of milk and cream is given orally every two hours and immediately followed by 250 units of thrombin in 50 cc. of a water solution. Amphojel is administered at the rate of 1 tbs. every three hours. Additional measures include blood replacement in amounts up to 10,000 cc. in twenty-four hours, Meulengracht's diet, antacid therapy, and sedation. For bleeding esophageal varices, gelfoam powder is given in the dry state and followed only by thrombin solution. Operation should be done promptly after exsanguinating hemorrhage or failure of blood transfusion to improve circulation within twenty-four hours.

Am. J. Surg. 80:885-887, 1950.

Honors

Public Health Award

Dr. Rolla E. Dyer of Emory University, Atlanta, former director of the National Institutes of Health, has won the Sedgwick Memorial Medal presented annually by the American Public Health Association for distinguished service. He did outstanding work on Rocky Mountain spotted fever, typhus, and Q fever.

Doctor to Doctor

Think of a gag that fits the illustration. For every issue a new gag is published and the author is sent $5. The Feb. 15 winner is

J. F. Fulp, M.D.
Stoneville, N.C.

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"So what if they got your 80%? You should smile. Mr. Truman says next year it's really going to hurt."

3 Useful Cardiac Drugs

❶ Thesodate — Brewer IN ANGINA PECTORIS

(Theobromine Sodium Acetate 7½ gr. enteric coated)

Thesodate has been proven effective in increasing the capacity for work in individuals suffering from coronary artery disease. One Thesodate tablet four times a day (after meals and at bedtime) helps to maintain improved heart action and increased coronary artery circulation.

❷ Enkide — Brewer IN LUETIC HEART DISEASE

(Potassium Iodide one gram or half gram enteric coated)

Enkide is useful as an adjuvant in tertiary syphilis and wherever potassium iodide therapy is indicated. Enkide insures accuracy of dosage, absence of gastric irritation and convenience of administration. Patients are more apt to follow prescription directions because of these advantages.

❸ Amchlor — Brewer IN CARDIAC EDEMA

(Ammonium Chloride one gram enteric coated)

Amchlor cuts in half the number of tablets each patient takes when large amounts of ammonium chloride are prescribed. This convenience to the patient helps to insure full and complete use of the entire amount prescribed. Amchlor is useful in cardiac edema, hypertension, dysmenorrhea, Meniere's Syndrome, etc.

For samples — just send your ℞ blank marked MM-2.

Brewer EST. 1852

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Chemotherapy

Drugs for Peritonitis

Death from widespread polymicrobial peritonitis in dogs may be averted by intramuscular injection of penicillin in beeswax and oil at intervals of twelve hours. Mortality is lower than when penicillin is combined with streptomycin or sulfonamides, alone or together, or when only streptomycin is used, report Dr. H. A. Zintel and associates of the University of Pennsylvania, Philadelphia. The various types of chemotherapy were employed for dogs after contamination of the peritoneum with contents of the incised appendix, which was ligated and left in the abdomen. The survival rate varied from 66% with penicillin to 27% with streptomycin and was 3.7% with no treatment. Recovery seemed unrelated to bacterial types or strains noted before or after therapy or to antibiotic sensitivities of organisms in the first cultures.

Surg., Gynec. & Obst. 91:742-750, 1950.

Radiology

Radiation Death Prevention

Antibiotics may lower mortality of the radiation syndrome to a third or a fifth of expected rates, after exposure commonly lethal in 70 to 100% of cases. Sickness is also reduced and, with fatal injury, survival time is prolonged, although actual damage to tissues is not influenced. On noting that rats killed by injection of radioactive phosphorus had both gram-negative and gram-positive bacteria in the lesions, Drs. Simon Koletsky and James H. Christie of Western Reserve University, Cleveland, used penicillin and streptomycin in combination for protection. Benefits were similar whether intramuscular doses were given for three to ten days before injection of P^{32} in different amounts or immediately afterward in courses not exceeding three weeks. Mortality was lowered in 8 of 9 groups and in 4 was greatly reduced, for example, from 67 to 14% and from 100 to 33%. Weight loss, diarrhea, and bleeding were also distinctly less in treated animals.

Proc. Soc. Exper. Biol. & Med. 75:363-366, 1950.

Surgery

Prevention of Adhesions

When postoperative intestinal adhesions have been cut apart, regrowth is far less likely if motility of the bowel is maintained by early feeding and injections of Prostigmine. The regimen is particularly suitable if surgery is extensive but does not include intestinal resection. In preliminary trial on dogs, Dr. C. A. Schiff and associates of Michael Reese Hospital, Chicago, stimulated tissue formation by distributing talcum powder over the small bowel and, six weeks later, severed fibrous bands. For the first two days after operation some animals received subcutaneous injections of Prostigmine methylsulfate every four hours and were encouraged to eat and drink, while others had atropine sulfate and nothing by mouth. About 33% of adhesions re-formed in the first group and 92% in the second.

Surgery 28:977-982, 1950.

How mild can a cigarette be?

● Every day, more and more smokers—and among them many, many doctors—are discovering for themselves just how mild a cigarette can be. They're making their own 30-Day Camel Mildness Tests—smoking Camels regularly for 30 days.

It's a sensible cigarette test. As a doctor, you know there can be no valid conclusion drawn from a one puff comparison—from a trick test that calls for hasty decisions. The Camel 30-Day Test asks you to make a day after day, pack after pack comparison.

If you are not already a Camel smoker, why not try this test? Judge Camel mildness and the rich, full flavor of Camel's choice tobaccos in your own "T-Zone"—the real proving ground for a cigarette.

Make your own 30-Day Camel Mildness Test in your own "T-Zone"—That's T for Throat, T for Taste. See if you don't change to Camels for keeps!

R. J. Reynolds Tobacco Company
Winston-Salem, North Carolina

More People smoke Camels THAN ANY OTHER CIGARETTE!

Nutrition

Antianemic Factor

Folinic acid, commonly termed the citrovorum factor, when given in adequate amounts, promptly induces blood regeneration and relieves symptoms of pernicious anemia, nutritional macrocytic anemia, and tropical sprue in relapse. The superiority of large doses was demonstrated in 10 cases by Dr. Tom D. Spies and associates of Northwestern University, Chicago, Hillman Hospital, Birmingham, and General Calixto Garcia Hospital, Havana. Daily amounts of 200 units administered for ten days had insufficient effect in 2 instances and none in 4. The remaining 4 patients received intramuscular injections of 20,000,000 units per day for the same period, with excellent response in hematopoiesis and well-being. A dose of 10,000,000 units equals 1 mg. of pteroylglutamic acid.

South. M. J. 43:1076-1082, 1950.

Vital Statistics

U.S. Mortality

In every age group, the death rate for males is higher than that for females, and the latter is falling more rapidly, according to figures of the U.S. Public Health Service. Between 1940 and 1949, mortality of women and girls dropped 13% and of men and boys 7%, to 8.3 and 11.2 per 1,000 respectively. The largest relative decreases took place in younger groups. For example, the rate for 1 to 14 years declined 40%, and for 65 to 74 years 10%. The greatest sex difference was in the 15- to 24-year division, where the excess for males was 89%, more than 3 times the difference for 1940.

Publications

Journal Gets New Editor

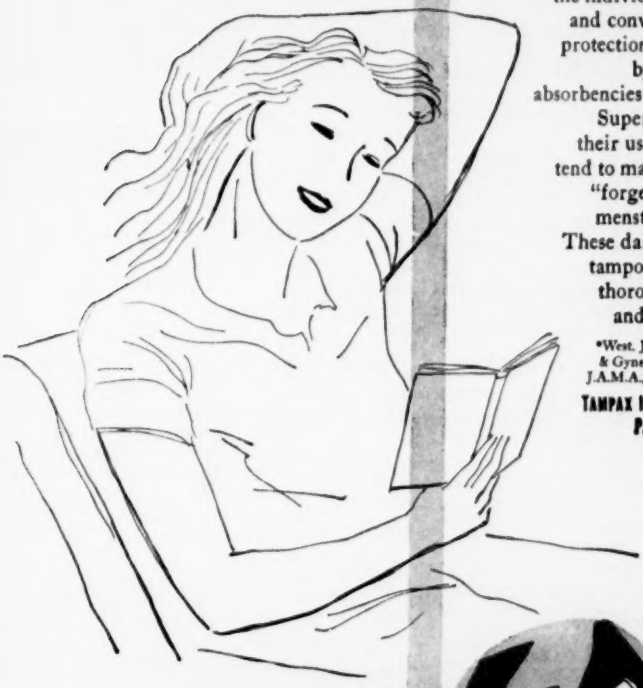
The *American Journal of the Medical Sciences* is now under the editorial direction of Dr. Richard A. Kern of Temple University, Philadelphia. He is assisted by Drs. Thomas M. Durant and Chris J. D. Zarafonetis. Dr. E. B. Krumbhaar of the University of Pennsylvania, who served twenty-five years as chief editor, retired at the year's end. Lea and Febiger are publishers of the journal.

Honors

Chemical Society Award

Dr. Roger J. Williams of the University of Texas, Austin, discoverer of the growth-promoting vitamin pantothenic acid, and a pioneer in folic acid therapy of pernicious anemia, has received the American Chemical Society Southwest award.

so comfortable



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*West. J. Surg., Obstet. & Gynec., 51:50, 1943; J.A.M.A., 128:490, 1945.

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THE SCOURGE OF RHEUMATISM. REPORT OF A CONFERENCE HELD BY THE BRITISH RHEUMATIC ASSOCIATION IN SEPTEMBER, 1949. 85 pp. William Heinemann Medical Books, London. 5*s*.

VIRUSES 1950 *edited by* M. Delbrück. 147 pp., ill. California Institute of Technology, Pasadena. $2.50

DIE ANSTECKENDEN KRANKHEITEN: IHRE EPIDEMIOLOGIE, BEKÄMPFUNG UND SPEZIFISCHE THERAPIE *edited by* Max Gundel. 4th ed. 1,056 pp., ill. Georg Thieme, Stuttgart. 66 DM.

PROGRESS VOLUME: MODERN DEVELOPMENTS IN THERAPEUTICS AND METHODS OF TREATMENT *by* Harold Thomas Hyman. 867 pp. W. B. Saunders Co., Philadelphia. $10

PHYSICAL EXAMINATION IN HEALTH AND DISEASE *by* Rudolph H. Kampmeier. 821 pp., ill. F. A. Davis Co., Philadelphia. $8

SEROLOGY WITH LIPID ANTIGEN: WITH SPECIAL REFERENCE TO KAHN AND UNIVERSAL REACTIONS *by* Reuben L. Kahn. 327 pp., ill. Williams & Wilkins Co., Baltimore. $6

LE RÉTRÉCISSEMENT MITRAL: ÉTUDES ANATOMIQUES, CLINIQUES ET THÉRAPEUTIQUES *by* R. Lutembacher. 304 pp., ill. Masson & Co., Paris. 1,400 fr.

Neurosurgery

STUDIES IN LOBOTOMY *edited by* Milton Greenblatt, Robert Arnot *and* Harry C. Solomon. 495 pp., ill. Grune & Stratton, New York City. $10

CRANIOPLASTY *by* David L. Reeves. 119 pp., ill. Charles C Thomas, Springfield, Ill. $3

Physiology

PHYSIOLOGY AND ANATOMY *by* Esther M. Greisheimer. 6th ed. 841 pp., ill. J. B. Lippincott Co., Philadelphia. $4

COMPARATIVE ANIMAL PHYSIOLOGY *by* David W. Bishop *et al.*; *edited by* C. Ladd Prosser. 888 pp., ill. W. B. Saunders Co., Philadelphia. $12.50

Embryology

CHEMICAL EMBRYOLOGY *by* Jean Brachet. 533 pp., ill. Interscience Publishers, New York City. $8

HUMAN EMBRYOLOGY FOR MEDICAL STUDENTS *by* S. R. Nair. 398 pp., ill. The Popular Book Depot, Bombay. 42*s*. or 28 rs.

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BACTERIAL POLYSACCHARIDES: THEIR CHEMICAL AND IMMUNOLOGICAL ASPECTS *by* Martin Burger. 273 pp. Charles C Thomas, Springfield, Ill. $6

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CHEMISTRY AND BIOLOGY OF PROTEINS *by* Felix Haurowitz. 374 pp., ill. Academic Press, New York City. $5.50

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AN ATLAS OF HUMAN ANATOMY *by* Barry Joseph Anson. 518 pp., ill. W. B. Saunders Co., Philadelphia. $11.50

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MANUAL FOR COMPARATIVE ANATOMY *by* Leonard P. Sayles. Rev. ed. 214 pp., ill. Macmillan Co., New York City. $3

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EFFECTS OF ATOMIC WEAPONS. PREPARED UNDER THE DIRECTION OF THE LOS ALAMOS SCIENTIFIC LABORATORY *edited by* J. O. Hirschfelder *et al.* 456 pp., ill. McGraw-Hill Book Co., New York City. $3

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That's What the Man Said

When I was in medical school we used to have fun spoofing one of the janitors in the lab building. We had been running some urine tests when the janitor came in. I poured the contents of two or three tubes into a beaker and handed it to John.

"Here," I said, "drink this. If it kills you we'll hold an autopsy."

"Over my dead body, you will," retorted the janitor.

"Yep, that's what he said," quipped my partner.—O.P.A.

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An angry young father burst into my office and brandished a bruised fist in my face.

"Come, come," I said, "take it easy. What seems to be the matter?"

"Matter?" he echoed. "If you'd been around last night you would have found out. I would have hit you instead of the door. What did you expose my wife for?"

It took a little doing but I finally convinced him that it was my regular practice to make such an examination after childbirth when stitches have to be removed.—R.G.F.

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"Why, when I just sit down and think, I blush," she said. "What can I do to stop it?"

"Probably the best way," said the psychologist, "would be to think of something different."—C.R.A.

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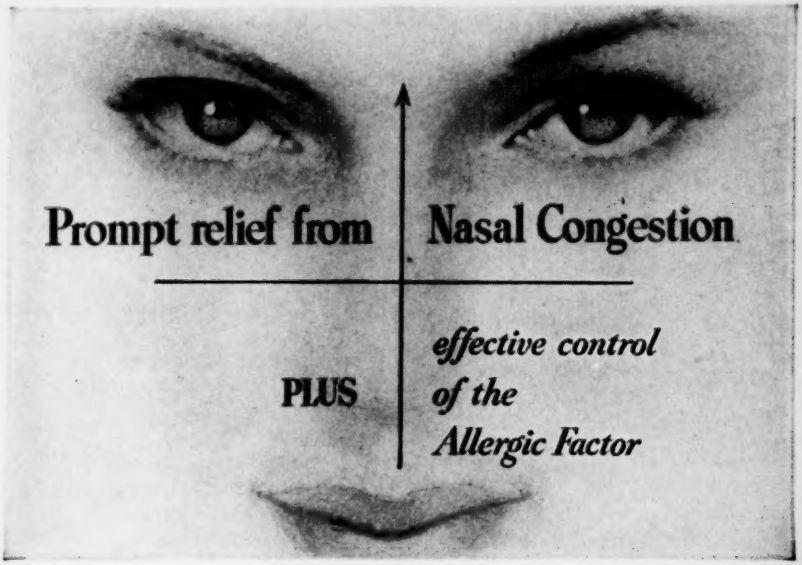

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1. Postgrad. Med. 4:413,1948. • 2. M. Rec & Ann. 42:673, 1948.

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